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J. M. KEYNES and D. H. MACGREGOR

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MARSHALL ON RENT

WHAT are "sound views" upon rent? Some years ago it would have been fairly easy to say, at least in England. A few quotations from Ricardo, fortified by a word or two about the condition of England during the Napoleonic wars; a glance at Mill, whose "cases of extra profit analogous to rent"¹ had stimulated the development of rent from the old conception into the new; a scowl, in passing, at Jevons; an assurance to doubting economists on the Continent or in America that they would find rent more acceptable if only they would familiarise themselves a little more with the great English system of land tenure; and finally a good deal about rent as the leading species of a large genus, with quasi-rent kept handy for emergencies;—this, or something like it, would probably have been accepted as proof of an economist who could be trusted. But nowadays it would be less easy to dogmatise. English economists are less prone than they were to embrace a doctrine just because, like rent, it is thoroughly English; and economists everywhere are so busy with facts that questions of general theory are regarded, often, with a kind of genial agnosticism. This holds particularly of rent, about which there still seems to be as little agreement as ever—*pace* Professor Schumpeter, who recently told readers of this JOURNAL that in serious theory there is now no such thing as a "difference in fundamentals."²

In the midst of this uncertainty, Marshall's views are still widely accepted as sound, or at any rate sound enough. In the Preface to the *Principles*, in successive editions from 1890 to 1920, he wrote: rent has "peculiarities of its own which are of vital importance from the point of view of theory as well as of practice." This thesis may be examined under four main heads: diminishing return, rent as surplus, "improvements," quasi-rent.

¹ *Principles of Political Economy*, Book III, Chap. V, § 4.

² ECONOMIC JOURNAL, September 1928, p. 363.

1. *Diminishing Return.*

In discussing returns, Marshall says that they should be thought of primarily in terms, not of value but quantity. "It is important to note" that the diminishing return to capital and labour under discussion "is measured by the *amount* of the produce raised," changes in its price having "no bearing on the law itself."¹ And yet so price-ridden is all economic thought that even here Marshall uses words like "remunerate"² or "profitably,"³ which almost inevitably suggest prices; his farmers have "pockets"⁴ to keep their savings in; £1's creep into his footnotes⁵; and finally he "concedes" that the method of measuring returns in terms of quantity, "though helpful for a broad preliminary survey, cannot be carried very far."⁶ And since, in fact, he never tries to carry it any distance himself, there is no need here to argue the case against it, or to do more than ask whether it is proper to speak of "relating" quantities at all, where the quantities to be related are so utterly different as produce on the one hand, and labour and capital on the other. Boys learning arithmetic are commonly told that cart-wheels should not be divided by oranges: should economists be asked, even in broad preliminary surveys, to compare directly, and without prices of some kind, bushels of corn, say, with days of work or tons of manure?

But whether the measurement of diminishing return be in quantities or prices, Marshall wavers throughout between two interpretations of the principle itself. Sometimes he associates diminishing return with what may be called *economic incompetence*: a farmer may go "too far" in a particular method of farming;⁷ a manufacturer may spend "excessively" on machinery,⁸ or allow his workshops and storerooms to become "overcrowded."⁹ In this sense diminishing return "results generally," he tells us, "from an inappropriate apportionment of appliances for production."¹⁰ On the other hand, he sometimes uses the phrase

¹ *Principles*, p. 149. All references are to the 8th edition. Cp. p. 319, where increasing return is described as "a relation between a quantity of effort and sacrifice on the one hand, and a quantity of product on the other. The quantities cannot be taken out exactly," but to measure them in money is "a tempting, but a dangerous resource," for it is "apt to slide into an estimate of the rate of profit on capital." The danger may be admitted; but why should we shun money prices altogether, or go sliding down the other slope into estimates of "unskilled labour of given efficiency" (p. 171)?

² P. 149.

³ P. 152.

⁴ *Ibid.*

⁵ P. 155, n. 2.

⁶ P. 171.

⁷ P. 150, where "under-cultivated" in the margin is apparently used to denote the "extensive" cultivation of the text.

⁸ P. 169.

⁹ P. 431.

¹⁰ P. 170, margin.

diminishing return to sound that note of *economic pessimism* which echoes like a dirge through so much of English political economy. In the struggle between man and nature, man is bound to lose sooner or later: the tendency to diminishing return may be "held in check for a time," but it must "ultimately become irresistible" if demand should increase without limit;¹ with a growing population "the evil day is only deferred";² people may "for a time escape from the pressure of the law of diminishing return," but only "*for the time.*"³

Marshall himself distinguishes to some extent between his two interpretations. "The diminishing return to an inappropriate investment of their resources by indiscreet farmers or manufacturers"—incompetence—"is not exactly on the same footing as"—pessimism—"the diminishing return to labour and capital in general applied to the land by discreet farmers, in such a country as England."⁴ Or, again, with small letters for incompetence and capitals for pessimism, "the diminishing return from disproportionate use of any agent of production is akin to, but distinct from, Diminishing Return of land in general to more intensive cultivation however appropriate."⁵ Indeed, they have "little in common" with each other;⁶ the "result of the misapplication of resources has no very close connection with the tendency of agriculture in an old country to yield a diminishing return to a general increase of resources well applied."⁷

Would it not be better, however, to say that these two interpretations have, not merely no very close connection, but no connection at all? The one, diminishing return arising from incompetence, refers to a point of time, and indicates that if a farm is run by an "inexperienced" farmer who has made "a bad distribution of his resources," the "result"⁸ at any given moment may be, quite naturally, disappointing. But what concern is this of the economist? His first business is to show what economic principles are, not to say whether people have acted in accordance with them or even whether they "have shown a reasonable amount of care and discretion";⁹ least of all is it his business to exalt the result of their carelessness or indiscretion to the dignity of a technical term. In the other interpretation, diminishing return refers not to a point but to a period of time, and Marshall uses the phrase, as many economists have used it before him and since, to generalise some particular observation of the past or to give sanctity to some particular forecast

¹ P. 153. ² P. 166. ³ P. 320. ⁴ P. 171.

⁵ P. 407, margin.

⁶ P. 408.

⁷ P. 409.

⁸ Pp. 405-6.

⁹ P. 408.

of the future. When economists have thought, as matter of history, that intensive farming in England became increasingly difficult between 18— and 18—, or have suspected, as matter of probability, that it would become so by 19—, they have often allowed themselves to speak roundly, as Marshall does, of the “tendency of agriculture in an old country to yield a diminishing return to a general increase of resources well applied.”¹ Or when they have reflected on the food question in England or some other patch of the world, in retrospect or prospect, they have often slipped into proclaiming with Marshall, “the broad tendency to the pressure of a crowded and growing population on the means of subsistence.”² Every economist, of course, is bound to diagnose the past as best he can, and to peer as best he can into the future, but he is not called upon to describe either his history or his prophecy by the name of diminishing return; nor, in discussing man’s efforts to get a living, is he called upon to weight the scales permanently in favour of nature and against poor man. If diminishing return is rightly to be regarded as a static and not a dynamic conception, as helping to explain what the economic is *at* any time, but not pretending to say what happens *through* time, in old countries any more than new, in agriculture any more than manufactures, then it is difficult to believe that Marshall’s second interpretation—economic pessimism—is much more likely than his first—economic incompetence—to find a permanent place in the equipment of economists.

2. *Rent as Surplus.*

Every schoolboy knows that rent is surplus. The question is, how and why? Surplus in what over what? Granted that returns diminish, Marshall has two lines of answer, based respectively upon his account of margins and his account of costs.

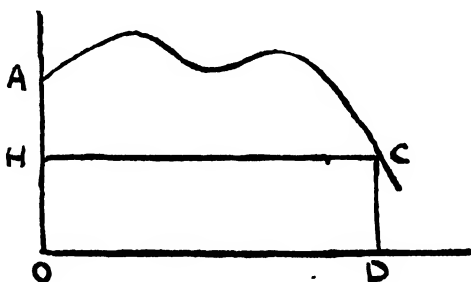
(a) *Margins*.—“Since the return to the dose on the margin of cultivation just remunerates the cultivator, it follows,” Marshall maintains, “that he will be just remunerated for the whole of his capital and labour by as many times the marginal return as he has applied doses in all. Whatever he gets in excess of this is the *surplus produce* of the land.”³ This now familiar way of speaking is reinforced by the now familiar type of diagram, where OD represents doses, DC the marginal return, and AHC the

¹ P. 409.

² P. 408, where this is spoken of as one of “all these various tendencies to diminishing return.”

³ P. 155.

surplus produce. By the marginal dose, we are told, "we do not mean the last in time,"¹ at least "not necessarily,"² and it looks for the moment as if Marshall were arguing for a static interpretation of margins. But he bends the other way at once, and a page or two later, when he is unfolding the story of agriculture from age to age, he uses similar language and similar diagrams, apparently regarding his two tasks as much alike.³ Marshy land in the English fens, for example, he tells us, may at first produce little but "osiers and wild-fowl"; "the returns to capital and labour are at first small, but as drainage progresses, they increase; afterwards perhaps they again fall off." AC, which previously had waved up and down to illustrate the conception of surplus produce, now waves up and down to illustrate



the course of agricultural history, and the narrow confines of ODCA now impound perhaps three hundred years of cereals and cattle side by side with the early osiers and wild-fowl.

Marshall himself, of course, was most cautious in recommending his diagrams: they were illustrations, not proofs; "merely pictures corresponding very roughly to the main conditions of certain real problems."⁴ Yet nothing, perhaps, has done more than this particular type of diagram to obscure the main dangers to which marginal analysis is liable: the danger, on the one hand, of assigning a false independence to particular items of expenditure or receipt; on the other, of pressing into a single statement a number of ideas which may have little or nothing to do with each other—the pleasure of drinking 20s. tea, perhaps, and the pleasure of drinking 2s. tea.⁵ Even here, in this context, it may be doubted whether a single diagram should properly include fens undrained as well as drained, tropics with malaria as well as without,⁶ the returns on a farm before as well as after some "extensive change";⁷ in other words, whether CD should properly act as

¹ P. 154.² *Ibid.*, margin.³ Pp. 158–160.⁴ P. 155, n. 2.⁵ P. 125.⁶ P. 158.⁷ P. 159, n. 2.

standard height all the way back to O, if conditions at O are utterly different from conditions at the so-called margin.

But, however correct Marshall's account of margins and his use of diagrams might be held to be, the proof which he gives here ¹ by marginal analysis of the surplus produce of land, if valid at all, is valid only if we take for granted what it seeks to prove. A farmer doses land with labour and capital until, at the margin, he gets only the "ordinary returns" to labour and capital, "without affording any surplus." Multiplying the marginal return by the total number of doses, and subtracting the result from the total produce, Marshall has no difficulty in exhibiting a surplus produce from land. But of course, as has been often pointed out,² the same argument can be used just as properly to show a surplus from anything else. A one-man tobacconist, for example, doses himself with borrowed capital until, at the margin, his additional receipts only just cover the additional interest which he has to pay: multiplying this marginal return by the total number of doses of capital and subtracting the result from the total produce, he finds that there is a surplus produce from his labour. Or a milliner doses the capital of her shop with the labour of assistants until her additional receipts only just cover her additional wages bill: following the farmer's and the tobacconist's example, she in turn will be able to show that there is a surplus, this time from capital. Marshall warns us that this description which he gives of the surplus produce of the land is not a full theory of rent; "we shall not be ready for that till a much later stage."³ What may perhaps be said at this stage is that an argument that, witch-like, can raise a surplus from land or labour or capital at will is suspect; and that, however useful it may be for other purposes, it is not likely to help in an inquiry into the alleged peculiarity of the rent of land.

(b) *Costs*.—Marshall also argues for the surplus character of rent by relying upon the theory of costs which he develops in Book V; the Book aiming, he tells us, "not so much at the attainment of knowledge, as at the power to obtain and arrange knowledge with regard to two opposing sets of forces, those which impel man to economic efforts and sacrifices, and those which hold him back."⁴ With this admitted interest in the personal exertions of human beings, and this belief in their outstanding economic importance—that phrase, "efforts and sacrifices,"

¹ Pp. 154-5.

² *E.g.* by such different writers as Prof. Cassel and Mr. J. A. Hobson.

³ P. 156.

⁴ P. 324.

runs like a kind of counter-subject up and down Marshall's great fugue—he is not likely to approach rent impartially. Is the rent of land a cost? In the passage where costs and expenses are formally discussed, Marshall does not even ask the question: we are left to assume that the answer is No, since land and rent are not mentioned at all. "The exertions of all the different kinds of labour that are directly or indirectly involved in making it; together with the abstinences or rather the waitings required for saving the capital used in making it: all these efforts and sacrifices together will be called the *real cost of production* of the commodity. The sums of money that have to be paid for these efforts and sacrifices will be called either its *money cost of production*, or, for shortness, its *expenses of production*." ¹ The same argument *omittendo*, as it were, may be presumed to hold also of social costs which, we are told, include the cost of labour and capital but apparently not of land: "when considering costs from the social point of view . . . then we are concerned with the real costs of efforts of various qualities, and with the real cost of waiting." ² Again, when dealing with prime, supplementary and total costs,³ Marshall makes no reference whatever to land; and a little later, in discussing the stationary state and modifications of it, he rids himself of rent by asking us to assume, *per impossibile*, that there is no scarcity of land even where population and wealth are growing.⁴

Thus by the time that land is reached,⁵ it is hardly decent any longer to ask if rent is a cost, for Marshall has told us so often already that the only costs are the costs of effort and waiting. But he tries here ⁶ to enforce assent to this proposition by an argument about circular reasoning which is worth noticing. Rent, he says, is the "excess of the value of the total returns which capital and labour applied to land do obtain, over those which they would have obtained under circumstances as unfavourable as those on the margin of cultivation"; the margin of cultivation being defined here as "the margin of the profitable application of capital and labour to good and bad land alike." Now, "the cost of production of the marginal produce can be ascertained without reasoning in a circle," whereas "the cost of production of the other parts cannot." For, "if the cost of production were estimated for parts of the produce which do not come from the margin, a charge on account of rent would of course need to be entered in this estimate; and if this estimate

¹ Pp. 338-9.² P. 350.³ Pp. 359-61.⁴ P. 368.⁵ Chap. X.⁶ Pp. 427-8.

were used in an account of the causes which govern the price of the produce, then the reasoning would be circular. For that which is wholly an effect would be reckoned up as part of the cause of those things of which it is an effect."

Two comments may be made. First, Marshall's statement that rent is "wholly an effect," though it follows no doubt from his other statement that labour and capital are the only costs, remains, so far, no more than an assertion. And, second, it is difficult to reconcile this fear of circular reasoning, a fear which is exhibited by many economists besides Marshall, with belief in the central doctrine of economics that values both determine, and are determined by, one another, like the positions of balls in a bowl; ¹ or, as Mitchell puts it, that "all the prices in a business economy are continually influencing one another. To account for any one item in the system, one must invoke the whole." ² If all prices are thus mutually interdependent, why should economists take fright at circular reasoning of the type described by Marshall? If, say, three prices are in question, of course it is circular to say that A affects B, B affects C, and C affects A. But the argument is faulty, not because it is circular—it is quite right as far as it goes—but because it is incomplete; giving only three of the six relations, and omitting to say that A also affects C, B also affects A and C also affects B. Instead of taking fright, ought economists not rather to welcome circular reasoning of *this type* as a tolerably good approach to that multiple reasoning which Marshall himself did so much to develop, and by which alone, on their own hypothesis, they can hope to deal with prices?

The gist of Marshall's argument about rent in connection with costs is to be found in a footnote,—to a paragraph on the incidence of a special tax on hops.³ Discussing whether rent does or does not "enter into" the cost of production—Marshall once told Edgeworth that it was "*wicked*" ⁴ to say that it does—he says: "the ordinary man is offended by the old phrase that rent does not enter into the price of oats; when he sees that an increase in the demand for land for other uses manifests itself in a rise of the rental value of all land in the neighbourhood; leaves less land for growing oats; consequently makes it worth while to force larger crops of oats out of the remaining oat-land, and thus raises the marginal expenses of oats and their price." Which is true; but it would be just as true of any other factor as it is of land. If it were asserted that wages, for example, did not enter into

¹ P. 818.

² W. C. Mitchell, *Business Cycles*, 1927, p. 115.

³ P. 436, n.

⁴ *Memorials*, p. 436.

the price of oats, the ordinary man would be similarly offended : he would see similarly that an increase in the demand for labour for other uses was manifesting itself in a rise of the value of all labour in the neighbourhood, leaving less labour free for growing oats ; consequently making it worth while to force more out of the labourers who remained growing oats, thus raising the marginal expenses of oats and their price. A rise in wages, as of rent, would "serve as a medium through which the growing scarcity" of labour, as of land, would "obtrude itself on his notice"; and in neither case would it be "worth while to try to force him to go behind these symptoms of the change in conditions to the truly operative causes."

Of course, as Marshall insists, there is no "simple numerical relation"¹ between rent and marginal costs, and of course, therefore, Jevons must not be allowed, when pasture land yielding £2 per acre has been ploughed up for wheat, to debit this simple £2 against the expenses of production of wheat.² But in the course of his debate with Jevons, Marshall uses an argument which seems to concede more than the whole of Jevons' case. He begins by reiterating his own familiar definition of expenses : the price of wheat will be the "expenses of production (wages and profits) of that part of it which only just pays its way, that which is produced on the margin of profitable expenditure." And then he adds : "and if for the purposes of any particular argument we take together the whole expenses of the production of that land, and divide these among the whole of the commodity produced ; then the rent which we ought to count in is not that which the land would pay if used for producing the first commodity, but that which it does pay when used for producing the second." What the "particular argument" may be, Marshall does not tell us : what may be said of it is that it uses the phrase "whole expenses" in a sense opposed to the ordinary sense of expenses in the *Principles*, to include rent as well as wages and profit ; and it tells Jevons that, while he may not debit against wheat the £2 which his land had got for pasture, he is free to debit the, perhaps, £4 which it now gets for producing wheat. Or, as Marshall puts it a little later, the "expenses of production of oats are increased"—no, not by rent—"by the fact that land, which could yield good crops of oats, is in great demand for growing other crops that enable it to yield a higher rent."³

And when Marshall discusses the industrial, as distinct from

¹ P. 436.

² P. 437, n.

³ P. 450.

the agricultural, value of land, he is no more happy in establishing a peculiar position for rent. Directing our eyes to the top storey of a building, and calling this the margin, he isolates certain items of expenditure, calls these the expenses of production, and so has no difficulty in preventing anything else, and particularly rent, from entering into costs. "The expenses of production of the things raised on this (top) floor . . . are just covered by their price; there is no surplus for the rent of land. The expenses of production of manufactures may then be reckoned as those of the goods which are made on the margin of building, so as to pay no rent for land."¹ So far as the argument goes, it would be just as proper to concentrate attention on the bottom floor, and to argue that the expenses of hiring the land on which it stands are so heavy, that they are only just covered by the price of the things produced on this bottom floor; "there is no surplus for" wages or interest, which thus do not enter into the expenses of production.

3. "Improvements."

If neither Marshall's margins nor his costs establish any peculiarity for rent, what light is thrown on the question by his treatment of "improvements"—capital and labour sunk in the land?

In the first of the two chapters on the fertility of land, Marshall says that "the area of the earth is fixed: the geometric relations in which any particular part of it stands to other parts are fixed. Man has no control over them."² But before the reader's thoughts have time to wander to Dutch reclamations or Sicilian terrace-building, he finds from the next page that, however it may be with geometric relations, fertility at any rate can be brought under man's control. Man "can by sufficient labour make almost any land bear large crops." Indeed, "the greater part of the soil in old countries owes much of its character to human action; all that lies just below the surface has in it a large element of capital, the produce of man's past labour."³

¹ P. 448. Cp. p. 339, n., where Marshall says that the expenses of production of any amount of a raw commodity "may best be estimated" with reference to the margin of production at which no rent is paid. It is curious that there should be no agreement yet among economists whether all units of a thing in a given period are equally marginal ("the margin of the profitable application of capital and labour to good and bad land alike," p. 427; "every ounce of bread we eat is as marginal as any other," Cannan, *Wealth*, 3rd ed., p. 112), or whether margins are a matter of no-rent fields, top storeys (*Principles*, pp. 448, 450), "inefficient" workers (p. 705) and "weak" producers (p. 808, n. 2).

² P. 145.

³ P. 147.

Some of the properties of land are original, in short, and some artificial; but instead of developing the distinction between them, Marshall plunges at once into a digression. "The question how far the fertility of any soil is due to the original properties given to it by nature, and how far to the changes in it made by man, cannot be fully discussed without taking account of the kind of produce raised from it";¹ and he goes on to speak of forest trees and grass and cereals and vegetables. Ought it not to be said, rather, that even the fullest discussion of the origins of a thing should not admit any discussion of its many possible destinations—that the question, What do the properties of this piece of land owe to nature and what to man? has nothing whatever to do with the question, What is this land used for? Of course "human agency can do much more to promote the growth of some crops than of others," but what connection is there, in theory or fact, between the amount of labour which goes into a particular crop and the amount of labour which has gone into the particular soil on which the crop is growing? Of the various kinds of produce, vegetables may "owe most to man's labour," but they are not necessarily grown on the most man-made soil; and at the other end of the scale, Marshall's favourite forest trees, which have "very little to gain from man's aid," are often found on soils which without man's aid would not have been in existence at all.

Man "works on,"² however—at crops still, not soils—until returns diminish and surplus produce arises. This surplus produce, we are warned, is not rent, but it may become rent under certain conditions. "The full rent of a farm in an old country is made up of three elements: the first being due to the value of the soil as it was made by nature; the second to improvements made in it by man; and the third, which is often the most important of all, to the growth of a dense and rich population, and to facilities of communication by public roads, railroads, etc."³ Of these three elements—value due to natural properties, value due to improvements, and public value (as he calls it later⁴)—the third is irrelevant to our present purpose, for it operates independently of the other two: if population is growing in a district, it does not matter how far the properties of the land are due to nature and how far to man; their public value will be enhanced indifferently. Our concern is with the first two only, and with the distinction between them. Marshall adopts a curiously *non possumus* attitude to the whole affair. In old

¹ P. 148.² P. 149.³ P. 156.⁴ P. 433.

countries, he says "the results of some of man's work are for good and evil fixed in the land, and cannot be distinguished from those of nature's work: the line of division is blurred, and must be drawn more or less arbitrarily."¹ He admits later that there is "some interest"² in trying to distinguish between the two, but he only mentions one attempt—the argument, associated principally with Carey, that the expense of bringing land from its original to its present condition would exceed the whole value it has now, and that therefore all of its value is due to labour. Marshall, of course, has no difficulty in refuting this argument. As he says, the value of land in a well-peopled district is generally much greater than the expenses, so far as they can be properly charged to agricultural account, of bringing the land from its original to its present condition.³ But, in the course of the single paragraph which he devotes to the argument, he proves much too much. Where an improvement has been made, he contends that "the aggregate value of the extra produce which has, from first to last, been attributable" to it must be deducted from the expenses of that improvement. From first to last? If the aggregate value of all extra produce attributable to an improvement had to be debited against its expenses, many improvements, probably most, would be found to have cost considerably less than nothing. What negative sum would the net expenses of the Bedford Level, for example, amount to, if even a small part of the value of the extra produce attributable to it since the seventeenth century had to be taken into the reckoning?

The most definite expression of opinion which Marshall allows himself on the distinction between nature and improvements is a by-product, as it were, of his belief in the paramount economic importance of human exertions. If we exclude public value, and confine ourselves to the extra income derived from improvements, then, he says, "the whole" of that extra income is required as a rule, even in an old country, to remunerate the individual owner for his efforts and sacrifices.⁴ "For periods which are long in comparison with the time needed to make improvements of any kind, and bring them into full operation, the net incomes derived from them are but the price required to be paid for the efforts and sacrifices of those who make them."⁵ He develops the point further in an Appendix:⁶ "For long periods, that is, in all the more important problems of economic science . . . there is no distinction between immediate outlay and total outlay. And in the long run the earnings of each agent are, as a rule,

¹ P. 156. ² P. 634. ³ P. 634. ⁴ P. 426. ⁵ *Ibid.* ⁶ P. 832.

sufficient only to recompense at their marginal rates the sum total of the efforts and sacrifices required to produce them." What of land? This thesis "applies in a sense to land which has been but recently taken up; and possibly it might apply to much land in old countries, if we could trace its records back to their earliest origins. But the attempt would raise controversial questions in history and ethics, as well as in economics; and the aims of our present inquiry are prospective rather than retrospective." So the attempt is not made. It is to be observed, however, that it is not any sense of economic unfitness in the argument which holds Marshall back from this pursuit of efforts and sacrifices down the ages—the blood and tears of a Roman slave or a manorial villein, if only we could trace them, would apparently be just as relevant as the efforts and sacrifices of a twentieth-century farm-labourer—but mere paucity of data and a mere desire not to become embroiled in controversy.

It is here that the principal weakness of Marshall's position lies. He believed in the lasting importance of efforts and sacrifices applied to land. He also believed in the lease system of land tenure, especially in the English system, to which in one place he devoted a remarkable eulogy, maintaining that "the line of division between the tenant's and the landlord's share coincides with the deepest and most important line of cleavage in economic theory," and ascribing the merits of English economists largely to familiarity with the system.¹ It is strange that he never, in the whole course of the *Principles*, forced his two beliefs together and asked: if efforts and sacrifices are so important, especially in long periods, how is it that tenants with comparatively short leases are willing to undergo efforts and sacrifices, the permanent benefit of which will accrue, not to themselves but to their landlords? Why do tenants on leases of 33 years or 25 or even only 19—a common term in Scotland—sink money irretrievably in the land? Of possible answers there is one, suggested by Walker and others, which it might be thought would have been of special interest to Marshall:—that the cost of improvements in land should be estimated on the principles of *terminable annuities*; that tenants sink £1,000 of their own in an improvement, not because they expect a return from it at the standard

¹ P. 636. "This fact"—the alleged coincidence of cleavage—"perhaps more than any other was the cause of the ascendancy of English economic theory early in this century; it helped English economists to pioneer the way so far ahead, that even in our own generation . . . nearly all the now constructive ideas are found to be but developments of others which were latent in the older English work."

rate of 4 per cent. or 5 per cent. in perpetuity—on the contrary, they know they are due to relinquish the farm and its improvement in a few years' time—but because, during the limited term of their tenancy, they expect a return substantially higher than the standard; like annuitants, they expect to receive, say, 8 per cent. for a limited term and to forfeit any claim to the principal. This would help to explain how, in Walker's words, "there are few classes of improvements known to agriculture which a tenant for 33 years will not make at his own expense, notwithstanding the certainty that he will cease to enjoy the benefit of them at the expiry of his lease."¹

On this interpretation Marshall's efforts and sacrifices would retain their importance, but only for a limited time. As soon as the men who had made the efforts had died or, short of death, had had their efforts paid for on the principle of annuities, and as soon as the capital had been similarly brought to death, or amortised, then the improvements made in land by man would be indistinguishable, for purposes of value, from the virtues implanted in it by nature. After a time the efforts and sacrifices, to which the improvement was admittedly due, would have no place whatever in the reckoning; and the land would have value, not because there were efforts and sacrifices in it—by hypothesis these were already paid for—but because, as the text-books say, land is (a) useful and (b) scarce.

But Marshall adhered to his belief in the abiding economic merits of efforts and sacrifices, and he combined with this a belief in the importance of the "element of Time" as "the centre of the chief difficulty of almost every economic problem."² It is this second tenet especially which he elaborated into the theory of quasi-rent.

4. *Quasi-rent.*

In short periods, Marshall says, the income from appliances has "something of the nature of a rent."³ It is partly a mere question of definition: in short periods the income from appliances is "a surplus of total receipts over prime cost"; and if prime cost for short periods is defined so narrowly as to include only the bare "cost for raw materials, labour and wear-and-tear of plant, which is immediately and directly involved by getting a little further use out of appliances which are not fully employed"⁴—excluding, for example, all standing charges for fixed plant and

¹ F. A. Walker, *Political Economy*, 3rd ed., p. 399.

² Pref., p. vii.

³ P. 377.

⁴ Pp. 374-5.

all salaries of the "upper" employees¹—it naturally follows that any receipts over and above this prime cost are "surplus"; and since by hypothesis rent is also a surplus of some kind, it can be said that the income of appliances in short periods has "something of the nature of a rent."

But the main reason why the incomes of appliances in short periods are described as quasi-rents is that supply has not time to be fully adapted to demand; "on the one hand, there is not time materially to increase those appliances if the supply of them is deficient; and on the other, if the supply is excessive, some of them must remain imperfectly employed. . . . Variations in the particular income derived from them do not *for the time* affect perceptibly the supply."² What calls for observation is the importance which Marshall here seems to assign, in short periods, to maladjustment between supply and demand. The short period seems to be a thing of misfits and embarrassments; of "slack" trade with works "not fully employed"³; of supply either "excessive" or "deficient," but never right. In the illustration of quasi-rent given in the *Economics of Industry*, demand is an "exceptional" demand for a particular fabric caused by a "sudden" movement of fashion; the "special" machinery required for making it yields for a time a quasi-rent "greater than normal profits on the original investment"; afterwards demand is "less than had been expected," and quasi-rent is "less than normal profits"; throughout, the relations of demand and supply are "more or less accidental."⁴

This uneasy jumpiness which characterises short periods might perhaps be expected to disappear in long periods. And so it does: in long periods supply can adjust itself to demand; "all investments of capital and effort in providing the material plant and the organisation of a business, and in acquiring trade knowledge and specialised ability, have time to be adjusted to the incomes which are expected to be earned by them; and the estimates of those incomes therefore directly govern supply, and are the true long-period normal supply price of the commodities produced."⁵

It could be plausibly argued that the case should rather be stated the other way: that in short periods—apart from exceptional circumstances, such as the classical stand-by of a king's death and the sudden demand for black cloth—supply and demand are likely to fit better and not less well than in long

¹ P. 360.² Pp. 376-7.³ P. 360.⁴ *Economics of Industry*, App. C, pp. 426-7.⁵ P. 377.

periods; that in short periods estimates are likely to be fairly accurate, whereas "the longer the run," in Devas' words which Marshall quotes,¹ "the more hopeless the rectification." But there is no need to elaborate the argument, for this is precisely the argument which Marshall himself uses thirty pages later. The "central doctrine" about marginal costs in relation to values is that "that which is rightly regarded as interest on 'free' or 'floating' capital, or on new investments of capital, is more properly treated as a sort of rent—a *Quasi-rent*—on old investments of capital."² Why? Apparently because now, for present purposes, the short period is *less* jumpy than the long; there is *less* maladjustment between supply and demand. If a producer invests in material or labour that is "soon" embodied in some saleable product, "the sale replenishes his fluid capital,"³ and the terms interest and profits can be directly applied.⁴ But in long periods supply and demand may not fit so nicely: if the producer invests "in land, or in a durable building or machine, the return which he gets from his investment may vary widely from his expectation. It will be governed by the market for his products, which may change its character largely through new inventions, changes in fashion, etc., during the life of a machine, to say nothing of the perpetual life of land."⁵ We may not speak of interest and profits any longer, but only of quasi-rents and rents.

Thus Marshall seems in one context to regard maladjustments as belonging peculiarly to short periods, in another to regard them as belonging peculiarly to long. The second of these two views is particularly evident in the paragraph in which he summarises his central doctrine about quasi-rent. "So long as capital is 'free,' and the sum of money or general purchasing power over which it gives command is known, the net money income, expected to be derived from it, can be represented at once as bearing a given ratio (four or five or ten per cent.) to that sum." (The term interest is properly applicable.) "But when the free capital has been invested in a particular thing, its money value cannot as a rule be ascertained except by capitalising the net income which it will yield; and therefore (*sic*) the causes which govern it are likely to be akin in a greater or less degree to those which govern rents."⁶ Except on some such assumption as "much maladjustment, quasi-rent; little maladjustment, quasi-interest," how can this reasoning be regarded as other than a *non sequitur*? Because

¹ P. 380, n.² P. 412.³ P. 411.⁴ *Ibid.*, margin.⁵ *Ibid.*⁶ P. 412.

we use a particular method of ascertaining the money value of a thing—capitalising the net incomes expected from it—how does it follow that the causes which govern it are akin to those which govern rents? I have £100 “free” capital and I “expect” to derive £5 a year from it. The two sums of money are a ratio, and Marshall allows me to speak of interest at 5 per cent. When I have invested my free capital, the net income it yields may still be £5, and I may capitalise this at, say, twenty years’ purchase. Can I still regard this as interest at 5 per cent.? No: the method of ascertaining the income is different: “therefore” the causes which govern the income are likely to be different.

Maladjustments similarly seem to be part and parcel of the parable of the meteoric stones. At one extreme, when the stones are durable and the total supply is fixed, “changes” in the processes of production or of demand might cause the income from the stones to become “twice as great or only half as great” as the purchaser had expected.¹ At the other extreme, when the stones are brittle and new stones are easily obtainable, “variations” in demand would have but little influence on their price, and the income from them, allowance being made for wear and tear, would always “adhere closely” to interest on cost of production.² Intermediately, supposing the stones to last fairly long and new supplies to be obtainable with fair difficulty, the income from them “might temporarily diverge some way” from interest or profits on their cost: “changes” in the urgency and volume of their possible uses might have caused the value of their marginal services “to rise or fall a great deal.” *“And if this rise or fall, arising from variations in demand, and not from variations in the cost of the stones, is likely to be great during the period of any particular enterprise, or any particular problem of value that is under discussion; then for that discussion the income yielded by the stones is to be regarded as more nearly akin to a rent than to interest on the cost of producing the stones.”*³

Suppose that we cannot bring ourselves to give maladjustments this pride of place—and we have additional reason for hesitation when we recall the two opposing arguments which Marshall himself used about the relative importance of maladjustments in the short and the long period, and how they seemed to cancel each other out; suppose that, while we admit a large measure of maladjustment in all economic affairs, we are not persuaded to call incomes by different names because the malad-

¹ P. 416.² P. 418.³ Pp. 419–20. Italics mine.

justments affecting them may differ in magnitude; what remains in the doctrine of quasi-rent?

First, there is the dogma, to which Lauderdale perhaps first gave unequivocal expression, that while all values come from the interplay of demand and a limited supply, some values are more markedly affected by supply and some more markedly by demand. When things wear out quickly and are produced easily, that is, when new supplies are a large proportion of the whole, then the supply blade of Marshall's pair of scissors will be the blade that seems to do the cutting, and the incomes from these things will "adhere closely" to interest on their cost of production. On the other hand, when things are produced with great difficulty, that is, when new supplies are only a trifling proportion of the whole, then the demand blade will seem to do the cutting. But the incomes from these things also may quite well "adhere closely," like the others, to interest on the costs of such new supplies as may be forthcoming, and there is no reason why variations in demand should be expected to become great, or to spirit values away from all contact with costs. The value of new reclaimed land, for example, is settled mainly from the demand side, but it may also adhere quite closely to interest on the cost of producing it.

But besides this elderly and familiar dogma that some values are mainly supply-made and some mainly demand-made—and the essence of it is not the newness of some things compared with the oldness of others, but the proportion which incoming supplies bear to the whole—quasi-rent also gives shelter to two ideas which are more questionable; the one concerning time, the other concerning costs. Just as "the element of Time . . . is itself continuous," so, Marshall holds, "there is no sharp line of division between floating capital and that which has been 'sunk' for a special branch of production, nor between new and old investments of capital; each group shades into the other gradually."¹ Should it not rather be said that the distinction between free or floating capital on the one hand—free to be invested or spent in any other conceivable way—and all investments, new or old, on the other hand, so far from being a gradual shading, is one of the sharpest and cleanest distinction in economics? What was once £100 free capital is, when invested, something utterly different—£100 worth of land or ships or a mattress factory; the worth being commonly estimated, as Marshall says, by capitalising the incomes expected. And the age of the investment does not

¹ Prof., p. viii, repeated p. 412.

affect the sharpness of this particular distinction : an investment made yesterday is no more free capital, nor is it any nearer shading into free capital, than an investment made fifty years ago. Maladjustments and mischances occur, of course, but these depend more on the character of the investment than its age : what in 1900 was £100 worth of land or ships may be worth less or more now, but equally what was yesterday £100 worth of a new factory for Sink-not Mattresses, Ltd., may have jumped twenty points either way in the night.

There remains the relation of quasi-rent to costs. This has always caused trouble, and Marshall devoted a footnote to the "many misconceptions" which even "able economists" had shown about it.¹ Quasi-rent, he says there, is "no part of cost under any conditions," but "the confident expectation of coming quasi-rents is a necessary condition for the investments of capital in machinery, and for the incurring of supplementary costs generally." Obviously a manufacturer will not install a machine at all unless he "expects" fairly "confidently" that he will get something out of it. But no less obviously the mark of this confident expectation is that it operates most powerfully of all when a machine is new, and that it decreases in intensity as the machine ages. All early incomes from a machine are commonly regarded as very necessary profit indeed ; whereas later on, when costs have been recovered, if the machine is still working, any income from it can be regarded as unnecessary, if none the less welcome, profit. Not so Marshall : in short periods the income from machines is "correctly described as unnecessary profit"—because of the particular line he has chosen to draw between prime and supplementary costs. In prime costs, as Marshall defines them, we are not allowed to include any standing charges for durable plant, least of all in short periods :² if a piece of durable plant is "already made and waiting for its work," any return it may get is, by definition, a surplus over prime cost, and so unnecessary profit. Manufacturers all the world over may "confidently expect" short-period income—indeed, it may be a "necessary condition" of their investing in machines at all—but, for purposes of economic theory, this income is to be regarded as a "surplus," bearing "enough resemblance to that excess value of the produce of land over the direct cost of raising it,

¹ P. 424, n.

² P. 360. Cp. p. 420 : should not the sentence in the margin (a favourite with examiners) be inverted—"supplementary costs relatively to short periods become prime costs relatively to long" ?

which is the basis of rent as ordinarily understood, to justify us in calling it a quasi-rent." ¹

There is the same fundamental weakness here as in Marshall's attitude to "improvements," and it has the same origin—his attempt to drive both his "element of Time" and his "efforts and sacrifices" in double harness down the whole of the economic course. Sometimes time seems to be making the pace, as in quasi-rent; sometimes efforts and sacrifices, as in "improvements"; but neither is allowed to fall out of the running. It could be argued, and with reason, that efforts and sacrifices ought to fall out after a time; that while time itself may be "continuous," with short periods shading "by imperceptible gradations" into long, efforts, on the other hand, are essentially discontinuous; that the importance of any particular bit of effort is quite short-lived and ceases, not by an imperceptible gradation, but quite suddenly, as soon as the effort in question is paid for or the effort-maker dead. Senior put the same point when he said that "for all useful purposes the distinction of profits from rent ceases as soon as the capital from which a given revenue arises has become. . . the property of a person to whose abstinence and exertions it did not owe its creation." ² But none of this would have fitted in with Marshall's main thesis. So far from letting efforts and sacrifices perish, he tried, as we have seen, to give them an indefinitely long economic life, with an indefinitely long claim to earnings; arguing indeed that the longer the run, the more likely was it that the earnings of an agent would be found to recompense, and to do no more than recompense, the efforts that had gone to produce it; and that, excluding "public" value, this was broadly true even of land. ³

If this account of Marshall's views on rent is substantially right, some conclusions follow which may perhaps be put in this form :—

First, that efforts and sacrifices—granted that they are germane to economics at all—are of interest for only a limited time. Many improvements remain in being long after the efforts and sacrifices to which they were originally due have had their full earnings :

¹ *Economics of Industry*, p. 427.

² *Apud.*, p. 432, n. Marshall dismisses it as a suggestion, not worked out; though Senior "seemed almost on the point of perceiving that the key of the difficulty was held by the element of time."

³ *Esp.* pp. 427 and 832.

payment for these improvements, when once these efforts and sacrifices have been paid for, is indistinguishable from payment for original and indestructible powers. Thus, if a landlord is entitled to demand payment for original and indestructible powers, he is equally entitled to demand payment for improvements which others have made, provided that sufficient time has elapsed for the others to recover the cost of their efforts and sacrifices.

Second, that the various incomes from appliances do not shade into one another gradually, but that on the one hand there is a sharp distinction between all free capital and all investments or embodiments of capital, as Marshall calls them; and on the other hand there is a distinction, not so sharp but quite definable, between the incomes from those investments which have, and those which have not, efforts and sacrifices still to be paid for.

Third, that rent or payment for land is substantially like other payments for things which are both useful and scarce. By simple arithmetic rent can be made a surplus in receipts over capital-and-labour expenses, just as wages could be made a surplus in receipts over capital-and-land expenses. But where property in land is recognised, and where renting is adopted as the means of distributing what is scarce, rent is not a surplus over total costs; land is not commonly available without paying for it, any more than labour or capital. Just as wages and interest determine, and are also determined by, the prices of things made with the help of labour and capital, so with rent: rent is paid in part because corn is high, but also corn is high in part because rent is paid.

Fourth, there remain, and of prime importance, those surpluses in some things over other things which have long interested both theorists and men of affairs—a surplus in the receipts of some landlords over their capital-and-labour costs, a surplus in the receipts of some tenants over their capital-and-labour-and-land costs, an excess in the profits of some business men over their own profits at a previous datum-line, an excess in the incomes of some barristers and some jockeys over other barristers and jockeys in a given period.¹ They can be called by various names—surpluses, excesses, differences, differentials or almost any other name except, perhaps, one: a surplus of this kind should not be called like the rent of land, for normally the rent of land is not like that.

¹ P. 623.

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The task of examining a doctrine is only partly done when reasons have been given for agreeing or disagreeing with it. Of equal importance, and usually greater difficulty, is the attempt to explain why great economists held the views they did hold: why, for example, the ablest minds in Europe believed for so long in the prohibition of usury or why English economists for two-thirds of a century were dominated by the wages fund.¹ The explanation about Marshall and rent is singularly easy to point to: it lies in the Ricardian age, and particularly in the contrast which impressed the classical economists between the comparative fixity of land and the fluidity of capital, and still more, perhaps, of labour at a time when the proportion of children to the total population was exceptionally large.² Even at the end of the century Marshall was so deeply impressed that he frequently drew distinctions between old-world economics and new-world economics, and he sometimes used language about the fixity of land which otherwise would be very difficult to justify. In an old country, he says, "the supply of land is fixed," whereas "the supply of machines may be increased without limit";³ land "does not share the reflex influences . . . which a high rate of earnings exerts on the supply of other agents of production";⁴ "the stock of land (in an old country) at any time is the stock for all time";⁵ and he even tries to sharpen the contrast by the expedient of comparing a stock with a flow: "land in an old country is approximately (and in some cases absolutely) a *permanent and fixed stock*, while appliances made by man," including improvement in land, "are a flow capable of being increased or diminished" according to variations in demand.⁶

Apart from a general explanation such as this, which lies in the history of economic thought, there were certain qualities in Marshall himself which would have disposed him to believe in rent. He was loyal to tradition, and he was kindly and generous, especially to the classical economists: "if cross-examined," they "would have explained away the misleading suggestions" of the wages fund;⁷ the distinctions which they and others drew between the words productive and unproductive were "very

¹ This is perhaps a defect in Prof. Cannan's incomparable *Theories of Production and Distribution*. Has anyone ever risen from reading it without feeling that all economists from 1776 to 1848 must have been not silly merely, but almost imbecile?

² As, e.g., Mr. Griffith and Miss Buer have shown.

³ Pp. 411-2.

⁴ P. 535.

⁵ P. 536.

⁶ Pp. 431-2. Cp. p. 545, about stock v. flow in the wages fund doctrine,

⁷ P. 545.

thin," but they ought to be allowed to "dwindle gradually out of use, rather than be suddenly discarded" ¹; Adam Smith, instead of holding contradictory views about rent, as most people thought, simply "anticipated in one part of his writings truths which in other parts he has seemed to deny"; ² Ricardo, as Roscher suggested, should be "rewritten" to suit changed cases; ³ he and his followers were "rightly guided by their intuitions" when they "silently determined" that problems of supply were the most important. ⁴ In contrast with Marshall's own attitude, Jevons was often "harsh" and "combative," ⁵ and Prof. Cannan "acute," but "too severe." ⁶ And along with this loyalty to tradition, and especially English tradition, Marshall's large nature possessed in a peculiar degree what George Eliot called the hospitality of the human mind—always ready to welcome ideas and loath to dismiss them; delighting in "likeness amid unlikeness," ⁷ in "the Many in the One and the One in the Many" ⁸; above all in that "principle of continuity" and those "applications" of it which he regarded as the special characteristics of his book—continuity running through the various kinds of motive, of value, of conduct, of income. ⁹ In the original Preface he had also emphasised continuity in the use of terms and in the development of economic thought; and though the paragraphs were afterwards omitted from some editions, Marshall's mind about the substance seems to have undergone little change. Because nature was complex, he had an almost passionate suspicion of simplicity in thought or expression: "in this world every plain and simple doctrine as to the relations between cost of production, demand and value is necessarily false; and the greater the appearance of lucidity which is given to it by skilful exposition"—especially, perhaps, in short sentences ¹⁰—"the more mischievous it is." ¹¹ It was not surprising that he himself should have made so much out of the prefix *quasi*.

Finally, Marshall was deeply impressed—and what healthy person is not?—by the social and moral implications of the comparative fixity of the supply of land. Like many economists, he persisted in describing the gifts of nature as free, ¹² though everyone knows that they usually have prices; like many reformers throughout history, he lamented the "spread of modern notions" which sent people from the country into the towns; ¹³ he

¹ P. 67, n. ² P. 439, n. ³ P. 163, n. ⁴ P. 525. ⁵ P. 820, n. 2.

⁶ P. 827, n. 2. ⁷ P. 431. ⁸ P. 777. ⁹ Pref., p. vi. ff. Cp. p. 660.

¹⁰ P. 816, on Ricardo's "bad habit."

¹¹ P. 368.

¹² *E.g.*, pp. 74, 78, 138.

¹³ P. 684.

was enthusiastic about small-holdings¹; and almost the only formal and advertised departure which he made from the theoretical plan of the *Principles* was to discuss the "heavy and many-sided responsibilities" which statesmen have in relation to land.²

It is for these practical reasons, no less than the theoretical, that economists should try to reach some sort of agreement about rent. Is the Marshallian doctrine substantially right or wrong? If wrong, should it be discarded or allowed, Marshall-wise, to "dwindle" away? Choice of some kind is desirable: people who, as Newman said,³ "can hold the balance between opposites so skilfully as to do without fulcrum or beam, who never enunciate a truth without guarding themselves against being supposed to exclude the contradictory," may pass for "sound," but they do scant service to economics.

¹ P. 654, n. 2.

² P. 802.

³ *Apologia*, Chap. III.

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ADAM SMITH AND THE DYNAMIC STATE

I

WITH singular felicity Sir Charles Lucas opens the new Cambridge History of the British Empire with a quotation from the Third Book of the *Wealth of Nations*. The Third Book would hardly find a place in a modern Principles of Economics; yet without it the assault on mercantilism, which occupies Book IV, and which for over a century tied political economy to free trade, would be mere logomachy. Adam Smith's thesis in Book III is simple. There are two sorts of advancement, the natural and the artificial; the natural from agriculture to manufacture and to foreign commerce last of all; the artificial from foreign commerce and manufacture to agriculture. The one, as he sees it, is the path which North America is taking, the other the path which all Europe has taken up to the present. As though playing with his readers he builds up the case for the natural course, only to turn round in the pregnant words, "It is thus that through the greater part of Europe the commerce and manufacture of cities, instead of being the effect, have been the cause and occasion of the improvement of the country" (Ed. Cannan, I. 390). History compels him to this conclusion; yet at least he must allow himself to tell the social cost—no free proprietors to cultivate by happy industry the land they own and know, but primogeniture, entails, land monopoly and landlordism. What a Bolshevik this Scotsman is! But in the next paragraph comes the Charter of Empire, which Sir Charles Lucas selects for his opening.

"England, on account of the natural fertility of the soil, of the great extent of the sea-coast in proportion to that of the whole country, and of the many navigable rivers which run through it, and afford the conveniency of water carriage to some of the most inland parts of it, is perhaps as well fitted by nature as any large country in Europe to be the seat of foreign commerce, of manufactures for distant sale, and of all the improvements which these can occasion" (I. 391).

A country this whose future is on the water. A country of inland ship canals, an emporium of world trade, a maker of cotton shirts

for Indian backs, rich in city mansions and country estates begotten by the profits of foreign trade! And Nature has no great quarrel either. "Perhaps as well fitted by nature as any"—a folly, certainly, but a folly as worth while as anything ever in this pretentious world. This is Book III, but the truth of empire haunts him to the end; and he closes the final Book V saying, Let England throw over empire, if she dare, and "endeavour to accommodate her future views and designs to the real mediocrity of her circumstances" (II. 433). The least of little Englanders could not take up such a challenge. All that they could do—and they did it for the best part of a century—was to forget their Adam Smith.

There is in Book III a curious thought which one hardly knows whether to call a repeated superstition or a genuine belief. After discussing the slow progress of agriculture since the time of Elizabeth, despite the encouragement given to it by the State, he observes, "It is now more than two hundred years since the beginning of the reign of Elizabeth, a period as long as the course of human prosperity usually endures" (I. 392). Why two hundred years? Is this anything more than mediæval astrology, deriving perhaps from Babylon? But the notion indicates his view of society. Society progresses, but the torch is passed from one nation to another (Machiavelli in his *Discourses* talks this way). Some nations are young and poor, but "evidently improving"—his own country of Scotland. Others are rich and advancing more rapidly—the sister kingdom of England. Others though rich are slipping backwards—France, perhaps (I. 92-3). As for the East; China, "one of the richest, that is, one of the most fertile, best cultivated, most industrious, and most populous countries in the world" (I. 73), has long been stationary. India, under the domineering oppression of the East India Company, finds the funds for the maintenance of its labour "fast decaying" (I. 75). Both have reached and passed their full complement of riches. It would seem that Adam Smith was a fatalist about nations, and yet, as to individuals, sceptical of the natural differences between one man and another, and altogether hostile to the view that slavery at any time or in any place is economically advantageous. Upon the former he says, "The difference of natural talents in different men is, in reality, much less than we are aware of" (I. 17). Upon the latter, "The experience of all ages and nations, I believe, demonstrates that the work done by slaves, though it appears to cost only their maintenance, is in the end the dearest of any" (I. 365). His is a doctrine of

hope for the individual and doom for the nation. But for island Britain, was there not a way of escape in Empire? He bars this way too. "Though empires, like all the other works of men, have all hitherto proved mortal, yet every empire aims at immortality" (II. 314). He pronounces the doom in a subordinate sentence, as if it were something that called for no proof. He is determined that the group shall not inherit the earth. For groups of the company order, of course he had no love; for nations and empires, not much. He scolded ordinary men for their overweening conceit in their abilities, their absurd presumption in their good fortune (I. 109), but this was not to exalt the State at their expense. To the nation he allowed two hundred years of prosperity, to an empire the hope of immortality with the certainty of death. To him, indeed, the enduring reality was not the patriot State, but the individuals in the population from A to Z. He was blind to the England of Shakespeare's delight, the mythical entity which we address as She. Thinking thus of nation and state he bent himself to a policy of opulence, of plenty for all rather than of power wielded by some, perhaps by one. It would be false to say that he missed the distinction between riches and power. "The riches, and so far as power depends upon riches . . ." (I. 351), he writes in one place; and to repeat it for the thousandth time, he conceded that defence "is of much more importance than opulence" (I. 429). Nevertheless, a system of national economy, such as Friedrich List expounded, could have no appeal for him. This would be to follow false gods, as impious as putting production before consumption in the purpose of political economy. Power and production are means to the end, to the well-being of those who compose the nation.

If we derived our Adam Smith from excerpt, we might at this point build a fantasy. An economics of opulence is static; an economics of power dynamic. The one exists to consume, accepting the travail of the nation as the order of God; the other struggles for life, consuming that it may produce the more and thus rise to heroic stature. The one is of Adam Smith; the other is of List and the numerous band before or after him who thought as he did. But this is to miss Adam Smith's key to himself. His prodigious feat was to take over a theory of dynamic growth from the panoply of force and apply it to well-being. Before him power was dynamic, driven home by sword and shot. He taught the nations to find it in the peaceful act of getting a living, in the making of pins and watches, in butcher-

ing, brewing and the like. Viewed historically, this change was "a revolution of the greatest importance to the public happiness" (I. 389); and accomplished by an impish trick. For what did the lords of feudalism abandon their retinues of land pirates? For a pair of diamond buckles perhaps. So long as they consumed their rents in kind they shared them with a thousand mouths, but when Commerce came with manufactured goods, they exacted rent in money and spent it on something which would be all their own—"in the wantonness of plenty for trinkets and baubles" (I. 389). They were in this, as in many other cases, led by an Invisible Jade.

Adam Smith lived late enough to know the significance of the East to the West; the one active, the other passive; the one rich per head and growing richer, even to the intoxicating brim of North America, where widows were "courted as a sort of fortune" (I. 72), and population doubled itself in twenty or twenty-five years; the other silent and sated, a storehouse of jewels and dead dogs, of jewels for the arms of the grandees and dead dogs for the maws of the poor. What had the East done to deserve it? Two things; they had bred after their kind and turned away from the sea, China, Ancient Egypt and Indostan alike. "They do not appear to have been eminent for foreign trade. The antient Egyptians had a superstitious antipathy to the sea; a superstition nearly of the same kind prevails among the Indians; and the Chinese have never excelled in foreign commerce" (I. 347). They farmed well, they manufactured well, but they did not carry. Could they have gone on to this last, completing thus the sequence of nature? But at this point the astrologer comes forth again. "The course of human prosperity, indeed, seems scarce ever to have been of so long continuance as to enable any great country to acquire capital sufficient for all those three purposes" (I. 347). How maddening for the astrologer that he must die before he saw the issue of America, which alone was following Nature's way! But perhaps as well; for he would have been constrained to register just one more triumph of artifice over Nature. "Were the Americans to stop the importation of European manufactures . . . they would retard instead of accelerating the further increase in the value of their annual produce, and would obstruct instead of promoting the progress of their country towards real wealth and greatness" (I. 346-7). Tell that to the Republican Marines!

II

Adam Smith, as we never tire of reminding the student, was philosopher first and economist second; the author of the *Theory of Moral Sentiments* in 1759 and of the *Wealth of Nations* in 1776. Yet the former is illuminating in part because of its essential inferiority to the latter. It moves smoothly over the surface of moral feelings in more than fifty small chapters. It is proper, indeed delicate, but it would read almost as convincingly from Chapter Fifty back to Chapter One. He never rides the centuries, and his examples are commonplace. Above all there is no crescendo in it; whereas the *Wealth of Nations* abounds in energy and purpose. The *Leit-motif* of the latter offends some. Ruskin could not stomach its psychology of self-interest, but of its drive and cumulative power there is no doubt. Two examples may be given of this from the field of theory, the one to illustrate the subtlety of his analysis, the other his impetuous realism.

Though he does not use the terms increasing, constant and diminishing returns, he thought in these three categories. The products of manufacture, by reason of the division of labour, he argues, increase in a much greater proportion than the numbers employed (I. 165). Elsewhere he stresses the importance of capital to the productivity of labour, and just stops short of saying that increase in the scale of production decreases unit cost. What holds of manufacture holds also of agriculture, but much less so, so that the superiority of produce consequent upon improvement is seldom much more than in proportion to the superiority of labour and expense (I. 8). Under constant returns he sets carpenters and joiners work, where the necessary rise in the real price of raw material counterbalances, or rather overbalances, the improvement in execution ¹ (I. 242). The rude material in question is timber, "barren" timber, not planted by man. What remains for diminishing returns? Or, in his language, what are the sorts of produce whose real price naturally rises with the progress of improvement?

(1) Rare wild-fowl whose price is only limited by the intensity of luxurious demand.

(2) Cattle and animal products. Cattle, he conceives, as passing from primitive abundance to the status of produced commodities till they acquire a cost parallel to that of corn.

¹ Marshall, *Principles*, p. 319, gives other examples (flour and blankets). Examples can only indicate *rough* constancy; and in the more or less of this Adam Smith's emphasis is on the less, Marshall's on the more.

He carries the sequence of animal husbandry up to the point at which it becomes an item in mixed farming; leaving us to infer that thereafter it will follow the course of agriculture in general—slightly increasing return.

(3) Certain articles in which the efficacy of labour in augmenting the quantity is either limited or arbitrary—such as wool and hides, being “side products”; fish, which rises in cost as near-by grounds are depleted; minerals, and in particular the precious metals, whose real value is likely to rise as society accumulates surplus subsistence.

All this is very subtle and intensely relevant. Adam Smith always generalises from fact. He is interested, not in what would happen if there were no improvements in agriculture, but what does happen in the course of improvement. And not having tilted against a bogey, he warns of a real danger, the exhaustion of natural resources of virgin timber and fish. Move him in the century and a half from the age of *laissez-faire* to the age of rationalisation and he becomes honorary president of the Conservation Commission. He was appropriate to Britain in 1776, both in analysis and policy. He is appropriate in analysis to the North America of to-day.

In wages Adam Smith is the realist. Without being under any illusion about the danger of surplus population, he rejoices in the liberal reward of labour. To complain of it, he says, is to “lament over the necessary effect and cause of the greatest public prosperity” (I. 83). “It is but equity, besides, that they who feed, cloath and lodge the whole body of the people should have such a share of the produce of their own labour as to be themselves tolerably well-fed, cloathed and lodged” (I. 80). It is a necessary effect, he holds, because a nation increasing in wealth has a stronger demand for labour. “It is not the actual greatness of national wealth, but its continual increase, which occasions a rise in the wages of labour” (I. 71). Labour’s chance comes in the Dynamic State.

But how did he guard against the objection that people would react to the increase of wealth by breeding up to its limit? His retort is: Look around you. Wages are “nowhere in this country regulated by the lowest rate which is consistent with common humanity” (I. 75). Population will only grow within its customary standards, and in England this standard is accustomed to rise. Not only does he evade thus the Malthusian impasse, but he drives right through the sanctities of the Wage

Fund Doctrine. "The workmen desire to get as much, the masters to give as little as possible" (I. 68). The fight is real, either may win. Such an emphasis was offensive to the belief that what the master can pay, competition will cause him to pay—that, no less and no more. It is not surprising, therefore, that James Mill advised his much-enduring son John Stuart to turn to the clearer light of Ricardo. Here there are no relatives. Growth is immobilised, change is rigid and formal. If A, then B. Stoke up the human furnace and the engine will do its work. So much food in, so much energy out. It is an equation and cannot be otherwise. Nevertheless, it is absolutism to which the workers of industrialism have refused to bow the knee, Adam Smith abetting. They strive always to broaden the fringe of optional expenditure which lifts existence into civilised life.

III

The proportions, no less than the matter, of the final Book V are peculiar. Its three chapters comprise three-eighths of the whole work. The middle chapter, Sources of Revenue, is straight economics, a study of the nature and incidence of taxation. The closing chapter is economic history plus political warning. But the first, the Expences of the Sovereign or Commonwealth, is a showcase for the exposition of Adam Smith's views on religion, education, philosophy and war. It is not a study of public administration, although, of course, he has to say what the State should do or not do, and it is noteworthy that this champion of *laissez-faire* declares for education by the State, if need be at the State's expense, and especially for the education of the common people. For "the state of the society" in the progress of the division of labour brings the great body of the people to corruption and degeneracy. It stands in danger of committing "mental mutilation" (II. 272). Therefore he extols the parish schools of Scotland, which had taught "almost the whole common people to read and a very great proportion of them to write and account" (II. 270); and gives honourable mention to the charity schools of England, which, however, were not of universal establishment. He is altogether a democrat in demanding education at all, but he inserts his individualism by pleading for competition and fees—not only because people value what they pay for, but because competition is stimulating and payment by results makes competition sure. If education is not forthcoming by voluntary effort, the State must step in; and its

participation is justified as compensation for that mutilation of mind which the economic order entails.

Arriving by this oblique, yet characteristic, route within the shrine, with one eye, so to say, on the purse and the other on the purpose, he bursts into a generous appreciation of youth, of those who live still in the season of gaiety, as he terms it in Chapter V of the *Moral Sentiments*. Remembering his parting triumph at Glasgow, when grateful students thrust their fees upon him, he declares :

“ Such is the generosity of the greater part of young men, that, so far from being disposed to neglect or despise the instructions of their master, provided he shows some serious intention of being of use to them, they are generally inclined to pardon a great deal of incorrectness in the performance of this duty, and sometimes even to conceal from the public a good deal of gross negligence ” (II. 253).

Was ever the partnership between teacher and taught more cunningly proclaimed ?

But inside the shrine he is the same man as without. He carries liberty into the central chamber, where education and religion meet. And the sacredness of liberty to him explains why, unless there be no other way, he is disinclined to the provision of education by an external body. For then it will be under the control of a body corporate, the governor of the province or perhaps some minister of the State. “ An extraneous jurisdiction of this kind . . . is liable to be exercised both ignorantly and capriciously. . . . From the insolence of office too they are frequently indifferent how they exercise it, and are very apt to censure or deprive him of his office wantonly, and without any just cause ” (II. 251). There are university towns of the New World which have not Adam Smith for their patron saint.

That which we find it hardest to forgive in him is his cynical emphasis on the generality of self-interest. Why must the teacher be paid by results ? Because it is the interest of every man to live as much at his ease as he can . . . at least as interest is vulgarly understood (II. 250). And why did Pennsylvania liberate its slaves ? Because they were few. “ Had they made any considerable part of their property, such a resolution could never have been agreed to ” (I. 365). We can, of course, make excuses for him. Self-interest to be rational must be enlightened ; therefore education. Liberty goes with justice, and both rest

on the bosom of natural right, as in the frequent phrase, "evident violation of natural liberty and justice." And at any rate by him the obsession was applied to worthy ends. Perhaps it is fairest to take our stand outside the age and the man, and to regard him as a landmark in the accomplishment of Time. First the group intolerances of mediævalism, with its mystical enthusiasms, so distasteful to him; then by recoil, liberty—liberty for the individual, and therefore liberty for the society, he fondly hoped; finally, the synthesis which we in our day endeavour to make, the humane control of liberated life.

It is with diffidence that one differs from the modern editor of Adam Smith. Edwin Cannan writes :

"It is clear from the passage at Vol. II. p. 177, that Smith regarded the title 'An Inquiry into the Nature and Causes of the Wealth of Nations' as a synonym for 'political œconomy; and it seems perhaps a little surprising that he did not call his book 'Political Œconomy' or 'Principles of Political Œconomy.' But we must remember that the term was still in 1776 a very new one, and that it had been used in the title of Sir James Steuart's great book, *An Inquiry into the Principles of Political Œconomy: being an Essay on the Science of Domestic Policy in Free Nations*, which was published in 1767. Nowadays, of course, no author has any special claim to exclusive use of the title. We should as soon think of claiming copyright for the title 'Arithmetic' or 'Elements of Geology' as for 'Principles of Political Economy.' But in 1776 Adam Smith may well have refrained from using it simply because it had been used by Steuart nine years before, especially considering the fact that the *Wealth of Nations* was to be brought out by the publishers who had brought out Steuart's book."¹

The passage in question runs, "This sect [*sc.* the Physiocrats] in their works, which are very numerous, and which treat not only of what is properly called Political Œconomy, or of the nature and causes of the wealth of nations, but of every other branch of the system of civil government, all follow implicitly, and without any sensible variation, the doctrine of Mr. Quesnai."

Now modern treatises take indifferently the title of Principles of Political Economy, Principles of Economics, Wealth and Welfare, Wealth, but they could not add the words "of Nations" without suggesting an angle which they do not design.

¹ Editor's Introduction, xviii.

But to Adam Smith it was proper. It is not of a nation but of nations that he writes. If he had concerned himself with Britain only, with an occasional allusion to other lands, he could not have given us a dynamics of national growth, with a theory of wealth inset. And this is what he does, yet without emasculating himself in a cosmopolitan man. He "goes along with" each nation in turn, to use his own phrase. Being the national of a country which was the seat of an empire, he understood imperialism, and happening to approve of it he was an imperialist, but on the condition that empire did not run counter to liberty. Therefore he pleaded with passion for the representation of the colonies in the parliament of Great Britain. Are we seriously to contend that an artist of Adam Smith's calibre desisted from naming it "Principles of Political Economy" merely because Sir James Steuart had occupied the title? Surely not. Steuart's sub-title was eclectic: "being an Essay on the Science of Domestic Policy in Free Nations." Adam Smith's design, however, was embracing, a science of foreign and domestic policy in nations free and unfree, from Ancient Rome to Modern Britain. And thus designing he set his political economy in a pageant of the ages. *An Inquiry into the Nature and Causes of the Wealth of Nations*, by Adam Smith. So it runs, so it had to run, his editor notwithstanding.

C. R. FAY

THE COAL BILL AND THE CARTEL

ANYONE who recalls the conclusions of the two Royal Commissions on the Coal Industry must find it difficult to explain the origin of the Bill presented in 1929 for the reorganisation of its working methods. The Bill had no apparent relation to any of the conclusions which were reached in any of the four Reports which these Commissions presented. It is true that the second Part of the Act of 1920, which endeavoured to give effect to the suggestions of the Sankey Commission for bringing labour into connection with management, had broken down; but even so, the position of these suggestions was changed when it was proposed to make a compulsory reorganisation of the government of the industry. It was scarcely to be expected that a Socialist Government would then consent to the complete disregard of Lord Sankey's emphatic conclusion that it was time to make use in administration of the experience of the labour side. Neither of the Commissions had given any authority for the idea of enacting the system of organised restriction of output by local producers' Cartels. The Samuel Commission recommended co-operation in selling arrangements, and the Act of 1926 enabled such arrangements to be carried through as "partial abscptions." But it is quite a different thing to make legally binding the system of output restriction. The difference between these ideas appears clearly in the law of, for instance, the United States, where it is forbidden to agree on organised restrictions or minimum prices, while the simple organisation of sales is not forbidden.

The Sankey Commission debated in its evidence, especially that of Sir Richard Redmayne, the issue between what one side implied to be the Giant Sloth of nationalisation, and what were called by the other side the "Black Tigers" of capitalist combinations. Even if the tigers were to have their claws cut, as Redmayne thought possible, by the provision of controls over producers' amalgamations or associations, the debate went against this solution, and even against the Duckham scheme for controlling the profits of large producers' unions. It was the opinion of Redmayne that the German Cartel had worked successfully; but two members of the Government responsible for the Bill of 1929 took at that time the "black tiger" view of such

schemes. The change in view is the more remarkable as a "clause to cut claws" appears in the Bill only to the extent that the Cartel schemes must be approved by the Board of Trade, which could also dissolve them on complaint. But the Board had to approve schemes whose content was the organised restriction of output on the Cartel plan.

The proposals of the Bill appear to have been occasioned by the Report of the Committee on Co-operative Selling in Coal, presented in 1926. This Committee took a wide view of what such co-operation implied, and was evidently impressed by the operation of the Westphalian Cartel, which, in its view, "from its inception in 1893, has served the Ruhr coal industry well. . . . Under its regime, coal-mining in the Ruhr and the coal export trade have developed rapidly and fairly evenly. Inland prices have been steadied against the effect of trade booms and slumps, and more regular working of the mines has been secured. . . . The development of the industry has been regulated to its own advantage, and generally speaking to the benefit of German industry." The elements of instability in the system were, in the Committee's view, removed by the legislation of 1919, which made the Cartel system compulsory, thus doing away with outsiders, and the fighting policies which their presence occasioned. The Committee went still further, and argued that in this country "industries which already have such organisations, and monopolistic combines generally, have shown sufficient commercial vision to maintain a reasonable balance between the selling prices which it is in their power to charge and the selling prices which they actually do charge. . . . There are worse evils than a monopoly." When district organisations were in mutual competition the danger was still less to be feared. And, to speak generally, they held that combination was at any rate a policy, where otherwise there was none. They thought that the law on restraint of trade should be cleared up, so as to remove uncertainty in the status of such combines; and of course this is done to a considerable degree when the standard Cartel methods are compulsorily enacted.

In view of the findings of the Committee on Trusts of 1919, the special inquiries under the Profiteering Act, about twenty in number, and other important unofficial inquiries since the War, this conclusion was remarkable. To take only one instance, a Joint Inquiry into foreign competition and conditions in the Shipbuilding industry reported in 1926 that "in view of the extent to which high prices of materials are prejudicing the total

costs of shipbuilding, we agree to ask the Board of Trade to investigate the operations of rings and price-fixing associations in the supply of these materials, with a view to bringing relief to shipbuilding." The Selling Agencies Committee did not consider the rationalisation of competition by anything short of the full Cartel method. In America, where this method is illegal, the result has been to cause producers to develop the Trade Association to its fullest extent, so that, partly by private arrangement, partly with the assistance of the Federal Trade Commission, a sort of law merchant or code of competitive regulation has been created in many industries.¹ Everything which mutuality, in the form of publicity between competitors, can do is thrown into the balance against risk, so that the Trade Association has become a new factor in the argument. But the Coal Committee went straight for the stronger organisation as exemplified in Westphalia, and appended an account of the Cartel. This appears to be the origin of the Bill of 1929, where bare outlines are similar to the later German development of central and local Cartels under public compulsion and supervision.

On the other hand, the occasion for a particular regulative proposal is not the cause of the industry having been due for regulation in the public interest. The particular phase at the time of the Sankey Commission was the relation of labour to control; later, it was the earning power of the industry as a whole. But behind these phases there may be simply the fact that coal is fundamental to national economy, and to our foreign trade, and has unusual political influence, and has "ripened" to the point of a national regulation. In that case, legislation occasioned by a particular phase has still to take account of all the causes of trouble; whereas the Coal Bill appears to have forgotten the problems of 1920, and to be legislating for only one thing, though the ideas of 1920 are more valid in the compulsory organisation now proposed than they were as part of the settlement in the Act of that year. The German legislation, which was also the substitute for complete nationalisation, aimed at allowing for all the issues, not of economic prices only, but of the relations of the various interests in the internal control. This is discussed later.

Before doing so, there is one respect in which the scheme is related to general industrial conditions so as to cause some misgiving. The Board of Trade is made finally responsible for the approval of the schemes of district and central Cartels. The

¹ *Report of the National Industrial Conference Board on Trade Associations*: New York, 1923.

Committee on Selling Agencies appears to have realised that the law of restraint of trade would require reconsideration. We have only the Common Law, which has reached, through about a dozen leading cases, the position that agreements in restraint of trade are not illegal, if they are "reasonable as between the parties," but that they cannot be enforced *in invitum*. There is a vaguer margin of reference to the public interest, to which it is at one time said that the law "looks jealously," while in another decision it is held that "the onus of showing that any contract is calculated to produce a monopoly or enhance prices to an unreasonable extent will lie on the party alleging it, and, if once the Court is satisfied that the restraint is reasonable as between the parties, this onus will be no light one." In yet other cases it is pointed out that the Common Law cannot be expected to keep up with Political Economy, or to argue on economic consequences. In these doubtful conditions, the existence of a law enforcing Cartel policy with organised restriction of output must, it would seem, increase these tendencies of the Common Law to which criticism was directed in the Macdonell memorandum of the Committee on Trusts, and to cause legal action to be even less frequent or effective against the unascertained amount of restraint of trade which is discussed in many recent findings. The chief result of these discussions has been the suggestion that the Board of Trade should have the right to obtain information, conduct inquiry, and lay the conclusions before some sort of tribunal. But if, in the most fundamental manufacturing industry, the Board is responsible for agreements, to which all producers must adhere, and which must include the quota system of adjusting output, its position as an investigating and reporting authority is liable to be prejudiced for the purpose of a general control over industrial combinations. In other words, a more definite general policy is required, to prevent this special policy from having harmful reactions. In Germany the position is different, because all Cartels are subject to a special tribunal, from whose jurisdiction the Coal Industry is withdrawn for special regulation. There, also, the Coal Cartel had been at work for thirty years, and could not, in a time of great unsettlement, be allowed to break down. It is a different thing, in the present condition of our law and our discussions on monopolist bodies, definitely to *select* this method and standardise it by explicit approval.

This is perhaps a good reason for proceeding first by creating amalgamations. It is American policy to allow this, subject to control of misuse of economic power in the stifling of competition,

and to prevent large enterprises from making restrictive agreements. In this country, the organisation may come out to the same result by whichever method we start. Amalgamations prepare the way for Cartel agreements; history shows that Cartels with movable quotas tend to create fusions of interests. We may never proceed to deal with monopolist questions at all, relying on Free Trade, but it is repeatedly suggested that we ought to, especially if they are strong enough to over-reach any free trade policy by private international agreements. Perhaps monopolist legislation is mostly fuss, and the Common Law is good enough, and we have to rationalise. But this is not what any inquiry into the matter has concluded, and in going about rationalisation it is better to be free afterwards to deal with restraint of trade, especially in coal. For that purpose we are *better placed in creating amalgamations, whose future agreements can then be considered, than in allowing them to develop within the ambit of the restriction system.* This question is academic only if we wish to get out of the present difficulties somehow. The next phase of rationalisation may have something to do with the proper expansion of output.

The priority of amalgamation is also said to have the advantage of preventing the vested interest of the quota, and sales at inflated values. There is not much in this, because, if the industry is going to be placed on a better earning basis, whether by amalgamations alone, or by amalgamations concurrent with a Cartel, it is impossible to avoid that expectation entering into the valuations of mines. Either quotas or capitalisations would have to take account of that, and in that light a fair quota is as possible a proposition as a fair capitilisation.

To turn now to the nature of the Cartel scheme which was proposed. It was only the outline of the German system which was borrowed—the administration of local Cartels, with a central Cartel and a resort to public intervention in reserve. These Cartels were to be purely owners' administrations. The control of the consumers' and workers' representatives was to come from outside the administrative system, by a parallel system of investigating Committees. Any complaint, and therefore a complaint about prices, could by this method reach the Board of Trade. There had to be some system of arbitration as between owners. A number of details were not filled in, such as the exact relation of the central Council to the local Boards. But a great deal was notably omitted in the Bill, which belongs to what in Germany is considered to be an adequate substitute for nationalisa-

tion, in the way of including within a single system of interlocked administration all the interests which may claim to be represented in the public regulation of an industry. In what follows, an authoritative commentary on the German Coal Law of 1919 is used to show its present operation.

The Coal Council has to issue rules for the industry in the interest of producers, consumers and the nation, and it is representative of all these interests. Half its sixty members represent employers and employed in coal-mines, in equal parts; and the rest are representative of the coal-using industries, the traders, the small consumers, the States, and other various interests. Its responsibility is shown by the admission of its members *durch handschlag*. It issues both general and particular orders to the administrative bodies, approves their constitution, and is the last place of appeal for complaints against regulations in a local Cartel or in the Coal Union. It has a complete right to obtain information from any branch of the trade, with due regard to technical secrecy. It can regulate the amount of import and export. It has now obtained a modification of the original law, which gives it a control over prices not at first conceded to it; its chief Committee can participate in the price deliberations of the Coal Union, and no price can be fixed if a majority of that Committee does not concur. Of course, it has nothing to do with wages. The representatives of employees, consumers, and officials on the Coal Union and the local Cartels are chosen from lists drawn up by the corresponding sections of its members. It can, in fact, do everything except carry on the industry itself, for it has not legal personality. Its costs are borne by the Coal Union. The Minister for Economic Affairs has the right to be represented at all its meetings, and can prevent it from acting unconstitutionally, but he cannot dissolve it. There are monetary penalties for disregard of its orders.

The Coal Union is simply a Cartel chosen out of the local Cartels, with representation on an output basis. It has to administer the industry within the rules of the Council, and to supervise the local conditions of sale and delivery. But it is not merely a producers' Cartel. Its supervisory body must include three employees' representatives, one representative of consumers, and one of the technical staff. Among its main administrative functions are detailed regulations for the uniformity of price discounts and terms of delivery, for own consumption by mixed undertakings, and for the points of delivery to which wholesale prices refer. In practice, it is the price-

fixing body for all the districts of Germany. And it is the first place of appeal by members of Cartels against the Cartel administration of the quota system and particular exemptions. From its own rules on these matters, either Cartels or their members may appeal to the Coal Council, while minorities of its members may also appeal to the Council against the making of its rules. Resort to the ordinary Courts is forbidden.

The inclusiveness of the appeal system, and of interests in the government, is continued down to the local Cartels. Consumers have their control over prices on the Union, but the Cartels must admit to both their managing and supervising bodies representatives of employees. This supplements on the whole Cartel the Works Councils Act for individual concerns. But in the management and supervision of the Cartel, the employees' representatives sit with full powers and, since wage regulation is outside this system, they are supposed to regard their nomination as carrying a responsibility for the whole industry, not for any section of it.

This tripartite system is finally tied together by the powers of the Minister, who can require information from all organisations and persons in the industry, and who has the right to be represented at all meetings of the Council, the Union, and the Cartels. His representative can hold up any decisions which exceed legal powers or endanger the common good. He has himself the final word on prices, and on the rules for import and export which are made by the Council.

In view of the simplicity of the proposals for price regulation in the English Bill, it may be of interest to set out the whole apparatus of price control in Germany, which is extremely far-reaching. Each Cartel discusses its prices in full meeting, amalgamation having reduced the membership to numbers suitable for such discussion. Voting being by output, the first control is that the stronger concerns have, in the Ruhr Cartel at any rate, usually preferred business to large restrictions at high prices; this depends on the fact that the quota is not only a right but an obligation to deliver, and can be revised. Of course, this protection of the consumer is only a relative one, since, when the quota system has operated for a long time, and prices are manipulated with a view to stability, a conjuncture is created to which the Cartels are adapted because they have created it, and it becomes difficult to say that the prices correspond to full possibilities of demand. The Minister's representative appears also to have a right to delay excessive price proposals on Cartels. Again, the

working of the sales system gives each member of the Cartel an interest in all the prices, not only in his own. With the exception of quite local sales, all home sales are made through the Cartel for account of each member, and he is credited with the accounting price. But he is debited with a tonnage levy, not only for the expenses of the selling agency, but also for all losses on home sales incurred by that agency. If any prices are too high, that will come back on sellers generally, and on that ground adjustments are made on a monthly basis of reckoning, within the maxima fixed by the Coal Union.

Prices are proposed to the Coal Union by the separate Cartels. It is in practice the Union which fixes them as maxima and announces them. It does not usually have to exercise a co-ordinating function, because the proposals sent up to it have already taken account of the competitive relations within Germany of the Cartels. The Coal Union does not exercise its right to fix sales areas or quotas for the Cartels. Prices are fixed by the Union as at certain points of delivery—works, transfer points, or storage points—though to get coal to these points any Cartel may bear any loss it likes; from these points freight charges must be added. To prevent excessive handling charges by dealers, both the Council and the Union are bound to declare the conditions under which a consumer who buys a wagon-load of 15 tons at a time can obtain it direct from wholesale points of supply. As this obviously applies to co-operative societies, and as the law requires that such societies shall be treated on the same basis as other traders, anyone who believes handling charges to be excessive will escape from them by joining a co-operative body, though he has also his own remedy if his purchases are large enough. The wholesale price decisions are subject on the Union to control by representatives of consumers and the Minister, and by the intervention of the Committee of the Coal Council in price decisions. This is not the end of the question, because the Minister can exercise his own control in more than one way. The German States are represented on the Committee of the Reichsrat on Trade and Commerce, and can there draw the attention of the Minister to the level of coal prices. Or in his official capacity, through his representatives at meetings, he can delay price changes; or on his own initiative reduce them. In any case, he has to hear what the Union and Council have to say. It is not to be supposed that all this system is always at work; the Coal Union practically sets the prices, knowing what the control is. A maximum fine of 100,000 marks can be imposed for exceeding the fixed prices.

The retail trade is also regulated. Communities of 10,000 inhabitants, or groups of communities, have the right to set up agencies in their areas, and to fix retail prices, for exceeding which penalties can be exacted; a right which lapses if the Minister uses the powers given to him to set up district offices for the same purpose, or if the States, with his consent, do so.

Besides the level of prices, there is a certain control over their uniformity. For example, the Coal Council is expressly empowered to compel buyers whose demand is irregular to take or increase their supplies in the summer months, when trade is otherwise slack. The price proposals made by the Ruhr Syndicate, whose influence is predominant, have always been ostensibly based on the idea that the conjuncture was thereby to be controlled and not merely followed; and the facts show that its prices had for twenty years varied much less than English prices. It did not put them up so fast, and it held them up when the market was falling. The instrumental use of the price of a fundamental requisite of production is, however, not so simple as this. In this country, the function has usually been ascribed to the price of money. But the control of the conjuncture in this way implies at least the threat that this price shall go up ahead of the rise of other prices; and to keep the price of coal down in these conditions does not obviously control a boom. The transfer of this function to the price of a commodity may, however, be effective if, with a moderate rise of price, long contracts are enforced. Price uniformity is also sought to be obtained by the power of the Coal Council to order a change in the percentage of output which mixed works can retain for their own consumption; in time of scarcity this may be reduced, so that more coal is marketed by the Cartel. This, however, only affects the channels of supply; the demand of the mixed works remains, though they buy more from the Cartel. Finally, as between consumers, the right of own consumption does not necessarily create the difference usually ascribed to it as a merit, in encouraging the integration of businesses, by giving them coal at cost. Anyone who buys a mine in a Cartel can only so so on terms which capitalise the advantages of that position.

The foreign trade in coal is subject in Germany to rules of the Coal Council, which can impose limitations, the Coal Union being competent to discuss the question and make proposals to the Council. Limitations of import must have the approval of the Minister. As regards export policy and prices, this appears now to work through the provision that the Council has to approve the

rules of the Cartels, the rule in the Ruhr Cartel being a division of the quota into two parts, of which one may be sold abroad. Producers may sell to that extent freely abroad, or they may sell abroad through their Cartel; there is some competition abroad with the Cartel by its members, though the Cartel has a priority claim on certain large dealers.

This system is not given as an example to follow in all its aspects, but rather as showing what has been the development of compulsory Cartels, when their privileges have to be combined with regulations for the common good. The English Bill was by comparison a simple proposal, though, as has been said, it will probably lead to more complete Cartellisation between larger units. As a matter of organisation, and especially for the sake of effective international agreements, sales may later be taken over by the English Cartels from their members. These Cartels are not likely to remain merely price and quota arrangements, as producers become larger and fewer. Then the system of arranging for the checks on policy by committees of investigation, standing outside the administration, will become less organic, and there is much advantage in the inclusiveness of the German system, which has fused the technical administration, the workers' share in control, the consumers' control, the Government supervision, and the process of appeal, so as to have made private capitalism work as close as possible to the ideals of nationalisation.

D. H. MACGREGOR

THE PROBLEM OF UNEMPLOYMENT.

The Post-war Unemployment Problem. By HENRY CLAY. (Macmillan & Co. 1929. Pp. x + 208.)

PROFESSOR CLAY tells us in his Preface that his first object is to present "a summary and analysis of the more important factors" in the problem, and his second "to discourage the hope that the problem, if left to itself, will cure itself, and to argue that the necessary organisation of the depressed industries will not be effected unless the initiative is taken and the impulse given by some agency outside them."

If there are twelve million employable persons, "a million unemployed" might conceivably mean either that a million individuals out of the twelve were unemployed for the whole of some long period of time under review, or that each individual in the twelve millions was out of employment for one week in twelve. "A million unemployed" in the second of these senses would be nothing very terrible; most people in Western countries are unemployed one day in seven owing to an institution of religious origin, and well-to-do persons often manage to spend one-twelfth of the remaining time on holidays. On the other hand, it would be a very terrible thing if out of every twelve children born into the world, one had to pass his or her whole life in idleness.

Of course our own "million unemployed" is neither the one nor the other of these extremes, but is made up partly of what we may call short-term unemployment and partly of long-term unemployment, so that it is somewhere between the two extremes. But where? Professor Clay might well have begun his "summary and analysis" by some attempt to give us the answer to this question, but he does not.

His failure to do so is important not only because without the answer we do not know how much we ought to deplore the existence of the million unemployed, but because short-term and long-term unemployment have different causes and required different remedies, and to discuss causes and remedies without careful regard to the distinction only darkens counsel.

The excess short-term unemployment over what was usual

before the war seems to be ubiquitous among the insured occupations. It is not confined to particularly depressed trades, and is found in occupations which are rapidly expanding and returning quite adequate profits. It is not observable in uninsured occupations, and countries which have done little or nothing to improve the lot of their unemployed seem to be more exempt from it than those which have made the largest effort in that direction. Ordinary persons, if they are not influenced by class or political bias, notice the correlation of time (for the coming into full force of the scheme of unemployment insurance coincides with the war period), of place, and of occupation, and they attribute the excess of short-term unemployment to the fact that unemployment is now better endowed in this country than it was before the war.

Professor Clay does give some weight to the effect of the unemployment insurance scheme upon employers and trade unions. To throw numbers of your employees out for short intervals to suit your convenience is obviously less likely to create friction, and is therefore more likely to be profitable, when the persons thrown out can draw on a common fund raised by stamp-duties on employment and other taxes, and so Professor Clay says the insurance scheme has had "the effect of substituting intermittent and irregular employment for regular work in industries in which such conditions were formerly rare" (pp. 118-19). As for trade unions, he says, "To-day trade union negotiators can afford to take the risk that a wage rate on which they insist will cause unemployment, because their constituents will be provided for by the national relief scheme" in addition to anything which the union itself can provide (p. 155).

But he dismisses far too airily the influence of insurance on the mind of the insured. "It is not," he says, "that unemployment insurance leads to the refusal of available work; the Employment Exchanges provide an adequate check on that abuse, were there any general inclination towards it" (pp. 117-18). This completely ignores the real issue. No one except a few lunatics imagines that there is a "general" or even a widespread inclination to refuse employment offered at standard wages on ordinary conditions and available immediately on the spot. All that is believed and alleged is that, especially in the occupations in which the superiority of employment over unemployment is least, the insurance scheme has reduced the economic pressure which used to make persons grab at every chance of employment, take what they could get regardless of every inconvenience, and stick to what they had got regardless of every disagreeableness—which

made them, like the old British army, "ready to go anywhere and do anything." And it is commonly recognised that no individual thinks of the alternatives open to him being "Take what you can get now, or go on the dole till this Government or the next lets your time run out, and then become a pauper (or 'publicly assisted person') for the remainder of your life." He takes the alternatives to be, "Take what you can get now, or hold out another week, when something better may turn up." "Sooner or later," says Professor Clay, the unemployed workman is obliged "to accept work outside his own district or trade if it is available." There is much virtue in the "later"; the magnitude of the turnover of labour (the number of new engagements) is so great that a very little average delay will make a very large addition to the unemployment.

Anyone who says this in public is likely to find himself denounced as "insulting the working classes," but of course wherever an evil can be increased by human slackness or carelessness, insurance against that evil tends to increase it. In a few cases the tendency may be completely counteracted by active measures adopted by the insurers who undertake the risk. Insurance against boiler explosions actually diminishes boiler explosions, because the insurance companies arrange for an inspection which would not otherwise take place. But the human mind is not so easily inspected as a boiler, and consequently unemployment insurance belongs to the very much larger class in which the tendency of insurance to increase the evil is counteracted not completely, but only in large measure, by the fact that it falls far short of giving full compensation to those who actually incur the evil insured against. Life insurance is rarely high enough to make the insured ready to die from neglect of his health and appetite; fire insurance never compensates for the unpleasantness of being burnt in one's bed; motor insurance nothing like covers all the unpleasantness of colliding with a heavy lorry or even of killing a cyclist or pedestrian, though the effusive sympathy of the coroner and his jury may help a little in the latter case. In all insurances of this class, slackness and carelessness are kept to some extent in check by the principle of deterrence adopted by the poor-law reformers of 1834—the principle that though the evil may be alleviated, the position of the person assisted to meet it must remain appreciably "less eligible" than that of him who does not come on the common fund.

If it is really desired to cut down the short-term unemployment, it can easily be done by diminishing the "eligibility," such

as it is, of the early stage of unemployment by lengthening the initial period which elapses before benefit begins to be paid. This would have the advantage of making more money available for dealing with the much greater evil of long-term unemployment. The present system, under which the risk of the small evil of being unemployed for a fortnight or three weeks is covered in a considerable degree, while the risk of the much greater evil of compulsory change of occupation and domicile is not covered at all, resembles a fire insurance which would provide against holes burnt in the carpets but give nothing in case the whole house is burnt out.

If we neglect all this part of the "problem of unemployment" and confine our view to the really depressed industries, we shall not find much to quarrel with in Professor Clay's account of the causes of the unemployment. The immediate cause, of course, is that these industries cannot sell enough of their products at prices sufficient to maintain the machinery employed in them and to give the standard remuneration to all the workers of all classes who are specialised in the trades. The trouble in the engineering industry originated in the outrageous expansion due to the war requirements; that in the coal industry in the suspension first of the Belgian and northern French coalfield and then of the Ruhr. The causes of the trouble in the cotton industry may be more obscure, and perhaps Professor Clay, stationed in Manchester, can scarcely be expected to give sufficient weight to the possibility that the bringing of raw cotton from very distant places to Lancashire and sending it out again to the same and even more distant places is not likely to become a permanent feature in mundane economy.

The quarrel is about the remedies for the unemployment rather than about its causes. To any suggestion that the standard profits should be reduced, the employers in this case could effectually reply, "Search us." The natural recrimination between the partners consequently takes the form of the employers saying, "Wages must come down," and of the other side retorting, "It's all the effect of your rotten organisation, and you ought to mend it or end it."

Professor Clay recommends reorganisation of the nature now commonly known as rationalisation, and here I think he has fallen into grave error. Rationalisation aims at either increasing the price at which the product sells or at diminishing the cost of producing it, or at both these objects simultaneously. Raising the price will diminish the amount sold, and consequently will not

increase but always diminish employment in the industry. Diminishing the cost of production without diminution of the earnings of persons engaged in the industry can very seldom mean anything more than reducing the quantity of labour required for each unit of output; it too, therefore, involves reduction, not increase, in the amount of employment in the industry unless a very large additional output can be put on the market without considerably reducing the selling price. Now neither Professor Clay nor anyone else gives us the least reason to believe that the additional product of the depressed industries which would be forthcoming, if the output per head were increased at the same time as most of the unemployed were taken back into employment, could be forced on the market without a heavy reduction of selling price. Rationalisation in the production of automobiles or of wireless apparatus may increase employment in those industries, because the demand is very elastic; the demand for bunker coal and cotton shrouds is not. It must be remembered that rationalisation cannot be monopolised by a single country, and the advantage gained by the first country adopting it is likely to be short-lived.

Rationalisation which reduces cost is no doubt a very good thing for the consumer and not in the long run a bad thing for the wage-earner in the trade which has adopted it, and it may increase employment in that trade if demand is elastic enough, but to put it forward as a cure for unemployment in the English great exporting industries at the present time is perfectly futile.

Having this opinion, I am absolved from the necessity of considering Professor Clay's further thesis that rationalisation will not be brought about by the persons chiefly concerned, but must be more or less forced upon them by the Government. But I cannot forbear observing that we must take Government as it is and as it is likely to be in the immediate future, and if we do that, I cannot imagine why much should be expected from it. A few years ago Government was selling coal dear to foreigners and cheap to home consumers; now it wants the coal-owners to sell cheap to foreigners and cover the loss by selling dear to home consumers. The whole record of Government's dealing with coal is one of failure and disaster.

If we conclude that rationalisation, whether voluntary or compulsory, however much it may be recommended for other reasons, is no cure for the unemployment in the depressed industries, are we driven to adopt the other suggestion that the true cure is to be found in a reduction of wages in those industries? Professor

Clay thinks such a reduction impossible if attempted openly, and he is not prepared to approve of the inflationists' plan of effecting it surreptitiously by a diminution of the purchasing power of the unit of account, which would tend to reduce real wages all round and not only in the depressed industries. I doubt the impossibility, and would be inclined to lay more stress on the utter undesirability of a reduction.

It is, of course, true that low wages in a depressed occupation may be said to have a good side, inasmuch as they discourage recruits from entering that trade, and head them off into others which are more in demand. But, as Professor Clay points out, wages in the depressed industries are already very unattractive to recruits, and it may be added that the obvious unemployment in them is another and perhaps even more effectual deterrent.

Employers who want wages lowered are not thinking of anything of that sort; they only see that at existing selling prices they could employ more hands if they had to pay less for the work done, and overlook the fact that when all or many of them were employing more hands, the total output would increase and the price at which it could be sold would fall. Polish miners apparently get less than half English miners' earnings at present, and would probably go a good deal lower still rather than be deprived of employment by English miners agreeing to work for much less than at present. If the workers in the export industries sold their work directly to the foreign consumers, no one would be so foolish as to tell them to reduce their prices to the level required to bring in all the present unemployed.

Nor is there any hope in the grotesque suggestion that the foreign competitors must be prevented from competing with the English producers by international conventions which will prescribe that they are not to work for less than the English. Silesian miners are not going to be starved at the behest of the pundits of the International Labour Office in order that more miners may be employed in England.

The true remedy for long-term unemployment always applied throughout history, and always effectual, is neither rationalisation nor reduction of wages, but redistribution of labour-force between the different occupations. When there are more people offering to do some particular kind of work than can be employed in it without reducing the advantages much below that of other occupations, surely the obvious and certain remedy is a redistribution of labour-force in the shape of a decrease of the number of persons offering to work in the depressed trade and an increase

of persons working in the others. In most cases the redistribution required is not very great and sudden, and it is consequently carried out almost imperceptibly by the non-replacement of the persons who drop out of an industry owing to death or old age or any other reason. But sometimes, as now certainly in the case of coal, the required redistribution is so great and sudden that it necessitates the transfer of some individuals from the depressed industry to others.

At first a reader of Professor Clay's book will think nobody recognises the possibility and efficacy of redistribution better than he. He says on p. 115 :

"The transfer of workers from declining to growing industries is a normal process. It had done more to relieve unemployment, by reducing the number of insured workers in the depressed engineering, shipbuilding, and metal group of munitions trades by 400,000, without any special Government recognition or assistance, than any other agency had done, before it was recommended as an instrument of deliberate policy by the Industrial Transference Board. Much of this redistribution, it is true, had taken the form of checking the entry of juvenile workers to fill the places of workers who had died or retired; but much also was the result of the spontaneous movement of adult workers from one trade or district to another. Anything that Government can do, therefore, to encourage and facilitate such redistribution will be a contribution, as productive as it is direct, to the relief of unemployment."

But, reversing the example of Balaam, Professor Clay having begun thus with a blessing for redistribution, ends with something very like a curse. Instead of suggesting that if a surplus of about 400,000 on the munitions trades has been absorbed by other trades since the war without Government assistance, a redistribution of equal magnitude may be effected within the next few years without Government assistance, and possibly effected a little quicker with Government assistance, he proceeds to insist on the smallness of the number of transfers claimed by the Transference Board as the direct result of their action—"20,000 in eight months." This figure, he says, is "sufficient to indicate the limits of the scheme." It seems a little presumptuous to ask us to conclude that if a board has, in fact, only assisted twenty thousand transfers in eight months, that rate, or thirty thousand a year, is the utmost of which it or any other board is capable. But even

if it is, I can see no ground for Professor Clay's continuing as follows :—

“ Transfer may in the course of years bring about a more even distribution of the burden of unemployment; it can increase the volume of employment only when it satisfies a hitherto unsatisfied demand for labour, and of such unsatisfied demands the Industrial Transfer Board produced no evidence ” (p. 119).

He seems here to have plumped straight into the “ lump of labour fallacy.” The first sentence seems to indicate that he has adopted the view of those politicians who allege, in defiance of all experience, that no industry can take on a transferred man without at the same time discharging another man already employed or at the least refraining from taking into employment one of the unemployed in the district in which the industry is settled; the second sentence argues that this must be so because the Transfer Board “ produced no evidence ” of “ an unsatisfied demand for labour.”

What sort of evidence would Professor Clay require? What sort of evidence ever exists of an unsatisfied demand for labour beyond the fact that additional labour has, in fact, found employment? Within four miles of my proverbial arm-chair I have seen in a very few years half a dozen big fields on which two or three agricultural workers were employed gradually covered by factory buildings in which several thousand factory workers are now employed, but I do not remember ever seeing or hearing of the smallest evidence of an unsatisfied demand for labour there. I have seen in a few years all the high-roads dotted with garages and petrol stations, each served by at least one and generally more persons who seem to make a fair living, and therefore to satisfy a demand, but I cannot imagine how evidence could ever have been produced at any time of an unsatisfied demand for the labour which they perform. I wonder whether Professor Clay would refuse food to a growing boy because no evidence of an unsatisfied demand for additional weight in bone and muscle could be produced. Since the time of Noah the regular rule has been for industries to expand and employ more and more persons without ever exhibiting signs of an unsatisfied demand. The supply and the demand advance together.

Searching through the book for some better argument in favour of Professor Clay's belief that there is no room in other industries for persons transferred from the depressed industries, we find

nothing at all except an attempt to show that "the expanding industries offer no adequate substitute for the loss of older trades" (p. 110). Taking a number of industries one by one, Professor Clay condemns each either as of trifling magnitude or as unlikely to expand much further. Now of course if trades are taken in his way it is easy to fill the rôle of a modern economic Jeremiah.

"The 48 per cent. increase in the numbers engaged in silk and artificial silk between 1923 and 1927 was insufficient to compensate for the $7\frac{1}{2}$ per cent. decline in woollen and worsted, while the 38 per cent. increase in the 'key' industries of scientific instruments and photographic apparatus would not balance the closing of a couple of good-sized mines."

Obliged to admit that the increase in the group called "distributive trades" is immense, Professor Clay falls back on the reflection that if people spend more on maintaining magnificent shops and having things sent up long distances to their suburban and country houses, they will have less to spend on "the products of industry." Even the motor industry gives him no comfort, since the domestic market for motors must be "approaching satiation" and Protection will not help it in the export market.

This line of argument falls in very well with the popular confusion between the importance of a trade as productive of necessities and its importance as "giving" employment—a confusion which is largely responsible for the prevalence of the absurd cry of "Back to the land" and the childish contempt for "luxury trades"—but it is fundamentally unsound. "The narrow capacity of the human stomach" noticed by Adam Smith, and the narrow breadth of the human back hinder the indefinite expansion of demand for the necessities of food and clothing, so that progress in wealth and civilisation necessarily and happily leads to a smaller and smaller proportion of the population being employed in producing necessities and a larger in producing luxuries. The essence of luxury is variety, and consequently employment comes to be more and more divided among a vast number of trades, each of which taken by itself is a small trade easily represented as of very little importance as a "giver" of employment, but which, taken all together, "give" a continually larger and larger proportion of the whole amount of employment. The truth of this has seldom been more important than in the present age, in which quite unexampled progress in the arts of production is accompanied by a sharp decline in the rate of growth of population,

which diminishes the number of stomachs to be fed and backs to be clothed.

The author of *Economics for the General Reader* would doubtless admit this general proposition, but as author of the *Post-War Problem of Unemployment* he would say that he was dealing not with the world at large but with a small group of individuals in it who are somewhat unsatisfactorily described as the people of Great Britain and Northern Ireland. These people, he might say, are selling in the market of the world, and he is thinking of them for the moment as producers and sellers rather than as a self-contained and self-supporting community. Adopting this rather mercantilist attitude, he seems almost to accept Mr. Thomas's view that "we must find customers for what we produce," instead of the much more practical maxim that we must produce what our customers, present and potential, want. If we have to change our exports, it will not be for the first time; raw wool was a staple export from England far longer than coal or cotton goods have been. It is not dangerous optimism to believe that the next generation and the next but one in this country may serve the foreigner in some more pleasant and lucrative manner than by hewing coal for him in third-rate mines. Far better surely, *pace* Mr. Lloyd George, even to provide the natives of Africa with the bicycles they are ready to pay for. The African market is likely to develop enormously for many things which could be well supplied from this country.

But even if it were impossible to replace one set of exports by another, there would be no reason for obstinate adherence to export trades which had ceased to provide as good a living as trades for domestic consumption. The only object of exporting is to buy imports with the money for which the exports are sold, and if some export trades disappear or shrink, some trades supplying home consumption will come into being or expand because they will produce goods to take the place of some that were previously imported. The protectionist will see what he is always clamouring for—production at home of things formerly imported—though he will not have the satisfaction of attributing it to his nostrum of protection, and will be puzzled to find it resulting from what he regards as disastrous, a falling off of exports. It may be that as "a general rule," or, to put it more definitely, in a majority of cases, beneficial redistributions of labour as between countries are in the direction of greater specialisation, and therefore of international trade, but this is no economic law; it will often happen that a change in

the opposite direction is made desirable by some change of circumstances.

There is, in fact, no reason whatever for supposing that transference of labour from the depressed trades cannot take place like the transference from the munitions trades, except that it has not yet been completed—we know that it has been begun, not only from the little contingent furnished by the Industrial Transfer Board, but also from the more remarkable fact that the former rapid increase of Glamorganshire's population has recently been turned into a decrease. That the transfer lags so far behind that from the munitions industries is obviously to be explained by the facts that the munitions demand ended abruptly with the war, and was not revived by subsequent occurrences like the occupation of the Ruhr, and that specialisation of persons and places was not nearly so great an obstacle in the one case as in the other. The transfer now required is more difficult and will take longer, but that is not to say it is either altogether impossible or impossible without creating unemployment in other trades.

From my window I can see a house in which the daughter of a Welsh miner is making good, and as I finish this review I hear a buzzer (or hooter, as we call it) releasing a goodly number of the Board's transferees for their dinner hour. I know that in this exceedingly prosperous town, which exports education, Bibles and motors, and which has recently grown greatly by immigration from other parts of the country, there are persons so much under the spell of the lump of labour fallacy and a misguided parochial patriotism that they imagine that every immigrant has kept an Oxford boy or girl out of a job. I greatly regret that Professor Clay has done something to encourage this obstructive heresy and to discourage governmental effort to assist movement from the depressed areas and industries.

EDWIN CANNAN

SOME NEW FEATURES OF GOLD MOVEMENTS

WHEN in 1925 Great Britain restored the gold standard even the most optimistic adherents of the system reckoned with considerable initial difficulties. It was generally realised that, in view of the fact that the number of free gold markets was small, an unduly large proportion of the burden of the increased gold demand would have to be borne by London. That those responsible for the return to gold were aware of the probable extent of the difficulties during the transition period is shown by the fact that substantial dollar credits were secured for the purpose of supporting sterling in emergency. Until about the end of 1928 these difficulties were well within the limits of anticipations. The removal of the embargo on foreign issues at the end of 1925, the General Strike and the Coal Strike in 1926, and the menace of heavy French gold withdrawals in 1927, were weathered without undue trouble. As since 1925 a number of countries have returned to gold, thereby broadening the basis of the system, it appeared justifiable in 1928 to believe, without exaggerated optimism, that the period of initial difficulties was over.

The year 1929 brought, however, a complete disillusionment in this respect. Three important countries—Argentina, Canada and Australia—found it necessary to suspend the gold standard. The volume of international gold movements has increased considerably, as a result of the operation of abnormal factors, notwithstanding a decline in the volume of special transactions, brought about by the progress in the co-operation between central banks. It has become evident that, four years after the restoration of the gold standard, disturbing influences are still at work, though they may have changed their character. What is even more important, the experience of the past year revealed the existence of new disturbing factors which cannot be regarded as temporary. They are the outcome of the changed conditions since the war, and some of them are likely to prove permanent, while others are likely to remain in existence for many years.

One of these abnormal factors is the progress of internationalisation of Stock Exchange speculation. Before the war, international intercourse in stocks and shares was largely confined to

regular arbitrage transactions in a comparatively limited number of securities which were quoted in several countries. The number of people taking an interest in international speculation was small, and their total transactions, even during periods of booms, were seldom sufficiently large to affect the international monetary situation. During the last few years, however, speculation on foreign Stock Exchanges has become very popular, not only among professional elements, but also among all classes of investors. European speculation in New York was the most characteristic but by no means isolated example of this new tendency.

Another abnormal factor affecting gold movements is the increased popularity of interest arbitrage—and the international shifting of funds to take advantage of higher rates of interest paid on short loans in foreign money markets. No individual capitalist, or even industrial or commercial enterprise, would have thought in pre-war days of transferring their balances abroad for temporary investment in short loans for the sake of a difference in interest rates. Although banks have always endeavoured to obtain a better yield on their liquid funds by shifting part of them to centres where short-term loans commanded higher rates of interest, the extent of their operations of that kind was comparatively small until after the war. The general adoption of telegraphic transfers and trunk calls in foreign exchange dealings has facilitated interest arbitrage to a very great extent, while the development of a forward exchange market has also been very helpful in that respect. Moreover, as since the war most banks have built up large foreign exchange departments whose activities have been curtailed by the decline of speculation in exchanges, the staffs of these departments, anxious to keep themselves employed and to produce a profit are eagerly watching every fractional discrepancy providing an opportunity for interest arbitrage.

As Stock Exchange booms are usually accompanied by rising money rates, the two new factors—the transfer of funds by those engaged in international speculation and those seeking to obtain a higher yield on short term loans—usually operate simultaneously, and tend to stimulate each other. Their combined influence would make itself felt in the international money market even if conditions were otherwise entirely normal. At present, when even the factors of gold movements which had existed before the war are far from settled, and when the comparatively inadequate supplies of gold have to face in any case an abnormal demand, the appearance of the new factors is particularly important. They were—directly or indirectly—responsible for the abnormal gold

movements which eventually compelled three countries to suspend the gold standard; for, apart from the direct interest of these countries in Wall Street speculation, which was substantial, especially in the case of Canada, the lure of high call money rates diverted funds to New York which would have otherwise gone to or remained in those countries. It nearly brought about a collapse of the German currency, owing to the virtual suspension of German long-term borrowing abroad. For the same reason, it threatened the stability of the currencies of Poland, Austria and a number of other countries. It also delayed the restoration of the gold standard in several countries.

The effect of the new factor on the monetary situation of Great Britain is too well known to require detailed description. The weakness of sterling and the heavy loss of gold during the first three quarters of 1929 were largely the result of British and continental speculation in Wall Street and of the transfer of funds to the New York call money market. It necessitated the increase of the bank rate to 6½ per cent. during a period of trade depression—a fact which requires no comment.

The example of the Wall Street boom of 1928–29 gives thus an idea of the importance of the new features of gold movements. Whenever there is a boom in any of the foreign Stock Exchanges the same experience may repeat itself to a greater or less extent. As the habit of buying shares quoted in foreign markets has been acquired by investors, large and small, the chances are that we shall witness the reappearance of the new factor before long. It seems probable that the excessive hoarding of gold in France, through its effect on money rates, and through the creation of a wave of optimism towards French trade prospects, will result in a boom in the Paris Bourse. Funds of speculators and short loans will then flow to France, and will result in a corresponding movement of gold which, in turn, will further feed the boom. Germany's turn will also come sooner or later. Thus, it seems probable that, within the next few years, while general conditions are still far from normal, we shall experience more than one period of difficulties caused by the new kind of "gold rush" towards countries where it is the least welcome. The new factor may repeatedly disorganise the international money market, and Great Britain is likely to become again one of the chief victims of its disturbing influence.

Undoubtedly, an all-round increase of the margins of gold stocks in countries on a gold basis, and an increase of the number of free gold markets, together with a more even redistribution of

gold supplies, will mitigate in the long run the effect of such shocks administered by the new factor upon international monetary stability. The disturbing influence will remain nevertheless in existence, and will constitute a potential danger, or at least the source of considerable inconvenience. Its significance in the long run lies in the fact that, unlike other disturbing influences, it does not carry its own corrective. The factors of gold movements operating before the war automatically set into motion forces tending to neutralise their disturbing effect. If the amount of currency was excessive, low rates of interest and/or high prices resulted in an outflow of gold which eliminated the surplus. If commodity prices were falling in relation to the world level, the influx of gold brought about by the effect of the tendency upon the trade balance checked the fall, etc., etc. The working of the monetary system before the war provided a full justification of the theory of economic harmonies put forward by the Optimistic School of the nineteenth century. Carey and Bastiat would find it, however, most difficult to defend their thesis in the light of the new experience. The new factors of international gold movements do not set into motion any forces tending to readjust the excesses of the phenomenon responsible for setting it into motion, *i.e.* the exaggerated Stock Exchange boom. On the contrary, it tends to accentuate the excessive rise of stock prices, and to increase the adverse effects of the inevitable slump.

The effect of the Wall Street boom and the subsequent slump on international gold movements may be quoted as a characteristic example in this respect. While the American authorities were anxious to restrict credit in order to check the boom, the inflow of gold caused by the buying of American shares and by the transfer of funds to the New York market of brokers' loans frustrated their efforts. A rise of interest rates caused by the official policy tended to accentuate the influx of foreign funds which resulted in an unwanted influx of gold. This, in turn, tended to encourage speculation through its psychological influence, even if its direct effect was neutralised by the monetary authorities. When the turn of the tide came, the withdrawal of foreign funds from New York resulted in an efflux of gold which was as inopportune as was the influx during the boom. Although the arrangements made by the Federal Reserve authorities prevented the gold efflux from bringing about a contraction of credit, its psychological effect was decidedly responsible for the accentuation of the slump, and for the general feeling of pessimism as to trade prospects in the United States. Thus, while the gold movements provoked

by the fluctuation of commodity prices tend to readjust commodity prices, those provoked by the fluctuation of stock prices tend to accentuate these fluctuations. It is particularly unfortunate that this inherently evil factor of gold movements should appear at a time when there is more than enough trouble with the abnormalities of factors which existed before the war.

Whereas the elimination of other disturbing factors is merely a question of time, there seems to be no prospect for the disappearance of the new factor. The popularisation of international speculation in securities is in accordance with the fundamental tendency of internationalisation of finance, which has been making rapid headway since the war. We have acquired better knowledge about each other's conditions, and have established innumerable new channels through which capital is enabled to cross political frontiers. This tendency has undoubtedly considerable advantages, but at present we feel its inconveniences to a greater extent than its beneficial influence. It is difficult to suggest any remedy against the new disturbing factor. While it is possible to check the international flow of funds by means of embargoes on foreign issues, there are no means of preventing the investor from buying shares abroad or from transferring his balances to a money market which allows a higher interest. We are entirely helpless against the new factor; all we can do is to hope that, in the course of time, our position will strengthen sufficiently to enable us to stand the strain of its influence without undue difficulties.

The factor of international movement of funds as a result of international speculation and interest arbitrage has caused, and is likely to cause, considerable inconvenience to practically every country. There is, however, another factor affecting gold movements, whose evil effects are largely confined to this country. This factor is the discrepancy between the rate of direct taxation in various countries.

In most countries, taxation is considerably lower than in Great Britain. The discrepancy is likely to widen rather than decline during the next decade or so, as most countries are likely to make considerable reductions in their direct taxation. In fact, many of them have already carried out important reductions during the last year or so. In this country, on the other hand, the best taxpayers can hope for is that there will be no increase in the rate of income tax and super-tax. Even in that case the difference between taxation burden in this country and abroad will widen, and the temptation of taxpayers to live abroad will increase.

Since the war, Great Britain has lost already many thousands of people who settled abroad in order to avoid the payment of income tax. As in the case of the international movement of funds, better knowledge of conditions abroad has large contributed to this development. A further reduction of taxation abroad is likely to stimulate the emigration of those who are not tied down to residence in this country by the nature of their occupation. As a result, there will be a constant outflow of funds which will tend to bring about a considerable efflux of gold.

The evil effects of this factor would strengthen to a great extent if direct taxation were to be increased in this country. While the influence of declining taxation burden abroad is gradual, an increase of income tax or super-tax would produce an immediate strong adverse effect. The response to an additional 6*d.* to the income tax, or to a reduction of the minimum income liable to super-tax to £1,500 would bring about an immediate heavy outflow of capital, and the depreciation of sterling thus caused would result in a considerable efflux of gold.

The factor of discrepancy in taxation has been operating slowly but steadily ever since the end of the war. Its strength became accentuated by the advent of the Labour Government, as a result of the anticipation of higher taxation. Even if this anticipation proves to be too pessimistic, the impossibility of following foreign countries in the reduction of taxes will in itself tend gradually to accentuate the factor. In order to protect the gold stock against the efflux caused by it, the central institution will have to maintain a high bank rate. This again would prevent a reduction of taxation burdens by means of advantageous conversion operations, and would handicap the increase of taxable income as a result of a trade revival. We are thus faced by another example of the case in which the gold efflux fails to set in motion forces tending automatically to counteract the adverse factors responsible for it. As in the case of the movement of funds through international share speculation and interest arbitrage, the gold movements caused by this new factor tend to accentuate the anomalies instead of mitigating them.

While the factors of international speculation and interest arbitrage affect every country, the factor of discrepancy in taxation places this country at a disadvantage as compared with its rivals. If the outflow of funds necessitates the maintenance of a higher bank rate than that of rival money centres, London will lose a substantial part of her international banking activity. This would mean the loss of one of the principal advantages for

the sake of which the gold standard has been restored at the price of heavy sacrifices.

Another new factor of gold movements—which is, it is hoped, of a temporary nature—is the political factor. As most countries on a gold basis work with a narrow margin, it is possible to cause them considerable inconvenience by means of withdrawing gold from their central banks. Thus, any Government which is in a position to withdraw gold from a foreign centre can make use of this weapon for the purpose of causing political pressure to bear upon another Government. If the withdrawals of gold are made under the disguise of commercial transactions it is most difficult to ascertain the responsibility of the Government in question. Moreover, if a foreign Government or a central bank possesses large balances in a financial centre it is legally entitled to withdraw them, no matter how embarrassing these withdrawals may be to the centre concerned. The only way to induce it to exercise the right of withdrawing its funds with due discretion is by means of concessions of a political or economic nature. Otherwise the centre concerned is exposed to withdrawals of gold irrespective of the monetary situation, against which it is useless to attempt to defend the gold reserve by means of an increase of the bank rate. Political considerations were rightly or wrongly believed to have been largely responsible for a great part of recent gold movements, though it is impossible to ascertain the exact part they played. Many people see more than mere coincidence in the fact that the unfavourable change in the Anglo-French relations brought about by the advent of the Labour Government was accompanied by heavy French gold withdrawals which did not cease until the end of the year 1929, when better understanding was established between the two Treasuries. Even if this theory is rejected, it is beyond doubt that semi-political considerations of prestige are largely responsible for the French Government's endeavours to accumulate a large gold stock far beyond immediate requirements.

In all fairness it ought to be recognised that up to now the extent to which the French authorities have made use of the exceptional power represented by their capacity of withdrawing gold from abroad has been comparatively small. Although French gold purchases have undoubtedly been causing a great deal of trouble during the last three years, if we bear in mind that France is in a position to bring about the suspension of the gold standard in any country with the exception of the United States, we have to arrive at the conclusion that up to now she has merely reminded

the world of the possession of her weapon without actually using it. It is, of course, contrary to her economic interest to cause trouble, but France is a country where political considerations usually overrule economic considerations.

It is reasonable to assume that, once the redistribution of gold is completed, the political factor will lose much of its present importance. Meanwhile, however, it is causing considerable inconvenience. The co-operation between central banks has so far failed to produce any remedy against this evil, for it is only directed against special transactions, while the political factor operates by means of influencing commercial transactions.

There is, therefore, always a possibility that, in addition to the new economic factors of gold movements, which are likely to trouble the international money market for decades to come, the political factor will also cause further complications. It is left to be seen whether the co-operation of central banks—which is expected to strengthen through the establishment of the Bank for International Settlements—will be able to reduce the influence of these new factors within reasonable boundaries.

PAUL EINZIG

HAS FOREIGN INVESTMENT PAID?

As unemployment is our main problem, I have been wondering in that connection whether our overseas lending policy has been too haphazard as to destination, or too indiscriminating, or even taken beyond the limits of prudence.

Has an appreciable amount of British savings passed as a gift, in the form of exports, to overseas borrowers? Are we wise to invest abroad the whole of our overseas trade net credit balance? Ought we to try to bring home a considerable portion of it in form acceptable to ourselves, and invest it here? And if so, what proportion of the net balance?

I want to examine the theory that if we lend less overseas, and if we also increase our imports, bringing them home in a form selected by ourselves so as to suit our purposes, there would be no resultant decrease of our exports. If the theory is sound, then I think home employment would benefit by its application, and increase of national wealth would result.

Our overseas investments in pre-War times were placed at £4,000 million. It is estimated that owing to the War we parted with £1,000 million of our overseas investments.

Last year, at the request of the Association of British Chambers of Commerce, I published an explanation of our overseas trade balance. Among the figures I then examined was the nominal total amount of British-owned overseas investments upon which we received income. Omitting private-adventure money, it was, in 1927-8, roughly £4,000 million. That is to say, nominally the same amount as before the War.

During the last fifty or sixty years we have year by year invested abroad very large sums. These sums consisted not only of credit balances accruing on the trade and financial transactions of each year, but also of large capital sums derived from our industry. The credit balance for 1913 has been estimated at about £180 million—a figure probably much above the average. What the average annual overseas trade net credit balance was we do not know.

I wish the Committee of Civil Research would set a team of young statisticians to work to find out the truth. Let us assume

an average credit balance of only £100 million invested abroad annually. This average would in sixty years aggregate to £6,000 million, and that sum would only account for overseas trade credit balances. Whatever that total may be, our surviving overseas investment of £4,000 million appears alarmingly small.

It would still be small even if private-venture money (say another £500 million) were added. Money has been continually invested overseas in private ventures, as well as in joint-stock enterprises. What has become of the vast unknown sum which represents the difference between our present possession of £4,000 million and the aggregate of sixty years of overseas investments? Refunding loans have been left out of the account, as they constitute no fresh obligation on the borrower.

In my opinion, a good part of the original "new"-money overseas loans has been lost. Those original loans went overseas in the form of exports. Many of the loan certificates issued by the borrowers and received by our investors are to-day valueless. The exports, paid for by loans made by us and defaulted upon by the borrowers, have, in effect, been a free gift by us to the borrowers. Do we realise that?

Let me give an example of what I mean. Many U.S. railroads after 1868 borrowed in Britain large sums for development. Most of those same railroads went later into the hands of a Receiver, with the result that those British investors who held the relative U.S. railroad securities lost their money. Remember that while Britain was investing "new" money in those days in U.S. railroads our exports increased greatly. Exports were created by the original loans. We rubbed our hands in satisfaction at the Board of Trade returns showing yearly increases of exports. But did we realise that exports in such circumstances ultimately constituted private and public losses to Britain? Although, for example, our rail-makers received payment for the rails they sold, the money came out of the funds provided by British investors, and as the railroad securities received by our investors eventually became securities in bankrupt railroads, Britain as a whole received no payment for those rails.

Would it not have been better for Britain if we had not placed our savings in those particular loans? It is plain that many of the exports created by those original loans were ultimately never paid for, and that they became a gift to the United States from Britain.

If our savings had been placed in British home loans, and had extended home undertakings to increase our efficiency, and if

there had then been a bankruptcy of those undertakings, the fixed assets upon which the money had been expended would at least have been possessed by us here in Britain. But as the savings were invested in United States railroads, and lost, the result was that we lost our savings in the form of exports, although the railroads still exist in the United States. Thus the United States benefited, and not ourselves who provided the money to build the railroads and develop the United States.

Similarly, we invested money in Egypt before 1882; in Turkey, in Eastern and Central Europe before 1913, in parts of Central and South America, in Asiatic and Central American railroads, and in other investments all over the world. The aggregate is vast. Much of it is a dead loss to the British investors, and to the nation itself. But the money, although lost by us, has developed the countries in which it has been sunk.

Before the War we invested in Russia a sum in the neighbourhood of £300 million. Many millions were lent prior to 1913 to develop Mexico. Our pre-War trade returns reflected increased exports as a result of those loans. What is there now to show for £400 or £500 million invested in Russia and Mexico? Take the case of certain railroads in Russia and Mexico. The savings of British investors built or extended those railroads. They have for many years given no return on the money so borrowed. We hold securities of the railroads worth little more than waste-paper, representing British exports. Thus the railroads created in such foreign countries by our savings were gifts by us to those foreign countries. It would have been better for British investors in those railroads had they kept their money and invested it at home, and had not provided exports as gifts to the overseas borrowers.

The Committee of Civil Research should ascertain whether the nation has been living in a fool's Paradise if an appreciable portion of the value of the exports shown in the trade returns has ultimately never been received by us as a nation. Has money been wasted in overseas loans that might have been put to useful purpose at home?

When British investors have lent "new" money to overseas borrowers, and the money has ultimately left us in the form of British goods, that is all right up to that point. But if the overseas borrowers eventually default on the paper obligations given by them to British investors who had provided their savings as payment for the British goods so exported, then those British goods have been paid for by the British investors, and pre-

sented by them as gifts to the overseas borrowers. There are those who go so far as to say that in some cases loans by British investors to foreign borrowers have not only been lost by us, but have helped foreign countries to develop the production of manufactured goods now sold in competition against our own manufactured products.

You cannot dictate to the British investor where or how he should invest his money. But if our haphazard overseas-lending policy in the past has in some degree been wasteful from lack of expert guidance as to which is the direction of investment most beneficial to us, then a team of expert economists should analyse the facts and lay the result before public opinion. Public opinion can be left to do the rest without interference.

We receive £285 million per annum as income on our surviving nominal total of £4,000 million of overseas investments: that is to say, a yield at the average rate of 7 per cent. I say nothing about the capital lost abroad which yields nothing, and would reduce the average 7 per cent., if taken into calculation. We have preferred to try to earn 7 per cent. abroad rather than 5 per cent. at home. But has it paid us to ignore our losses and on our surviving overseas investments to accept the 7 per cent., employing overseas labour, rather than 5 per cent. at home, employing home labour?

It is, of course, essential for us to invest abroad in order to develop the British Empire and to increase and cheapen our supplies of food and raw materials from foreign countries, who in turn are valuable customers of ours. We also need to create a reserve chest for overseas payments in time of war. But what I want to know is, how much have we lost by indiscriminating lending to overseas borrowers, and whether our home employment has suffered thereby? Are we investing in the right direction? Are we investing abroad too large a portion of our overseas trade net credit balance?

That is a question of degree. What is the degree?

Experience has shown that we do lose overseas a portion of our investments. Would it not be better to lose that portion at home?

Our expenditure on new houses over the last nine years has enabled us to bring home in form acceptable to ourselves perhaps £350 million of our overseas trade credit balances. Much of this sum would otherwise have been invested overseas to earn, let us say, 7 per cent. per annum. Our housing policy has created an increase of acceptable imports. But as the new houses could not

be exported they created no fresh exports with which to pay for the imports they called for. The result was that our overseas trade net credit balances sank to a relatively low figure for several years prior to 1928. The house-building policy giving rise to the increase of imports created employment in the building and co-operant trades. It has left us with assets in the form of new houses, instead of increased overseas investments, good or bad. But what proof is there that this house-building policy decreased or checked our exports?

Our overseas trade net credit balance for 1928 was £149 million. Part of it was immediately invested overseas where it was earned; and while the remainder was brought home for dividends, head office expenses, and so on, an equivalent sum was lent to overseas borrowers. Thus, in effect, we may regard the whole overseas trade net credit balance as being invested abroad.

Let me use the 1928 figure to illustrate my point. Suppose we do not invest the whole of our £149 million of overseas trade net credit balance in fresh overseas loans. Suppose we leave some of the non-British overseas would-be borrowers to obtain their loans elsewhere than from us. Suppose we then find convenient means to bring home in form advantageous and acceptable to ourselves part of our overseas trade net credit balance. Will not credit here then in the first place be cheapened, and become more plentiful for home investment? Will it not seek employment in industry, and so stimulate productive extensions at home, and more employment for labour? Will it not therefore cheapen the cost of the goods produced, and, in this way, enable us to extend our export trade? Our great need is to increase our export trade, and the clog on our export trade is that our goods are too dear. And if our savings are invested here, and lost here, will not the fixed assets which the investments produced at least remain here as an asset of some value to us?

It looks to me as if we may have pursued an indiscriminating overseas-lending policy in an unwise direction, and beyond the limit of prudence. Bearing in mind the object lesson of the influence of the house-building policy on our imports, I think that we must now analyse our overseas-lending policy and its effect, so that we may be enabled to eliminate what may prove to be an hitherto undetected flaw in our economic system.

ARTHUR MICHAEL SAMUEL

THE ACTIVITIES OF THE FEDERAL FARM BOARD IN THE UNITED STATES ¹

CURRENT high points of the Federal Farm Board situation are as follows :

The Agricultural Marketing Act is one of the most radical laws ever enacted in the United States, because it provides Government aid and subsidy in the form of hundreds of millions of dollars for the reorganisation of the machinery of marketing all kinds of agricultural products. The actual development of the programme specified in the law will require five, ten, fifteen or more years. The first steps, now being taken, towards materialisation of the programme are painful to many lines of the agricultural trade and to interests indirectly associated with these lines, not so much because of the immediate dislocation of private agencies but because of uncertainty and fear as to what will transpire in the near future.

The Federal Farm Board, which has charge of administering the law, is a distinctly conservative body, squeezed between radical mandates and essential sympathy for private interests. The policies adopted by this Board are practically more important to the business community of the entire nation than the law itself.

The Board has many important jobs ahead, but the big immediate task is to create central co-operative marketing agencies, as distinguished from merely local co-operatives. The whole trend of Board policy during the next year will be towards fostering of these central (or national) agencies, farmer-owned and farmer-controlled.

Certain private trading companies will gradually be forced out of existence, or will find their business seriously curtailed. This is a long-range probability, however, not an immediate situation. Many tradesmen, especially in wheat, are at this time more fearful of ruin than they need be.

Credit Terms

Practically unlimited Government funds are available to co-operative marketing systems at the "subsidy rate" of a little

¹ This Memorandum was compiled for the information of their Subscribers by the Standard Statistics Company of New York.

more than $3\frac{1}{2}$ per cent., as compared with the rate of around 6 per cent. paid by private agencies. This is the big point of the present agitation by private business against the Farm Board. It should be remembered that the law is primarily responsible for this, not the Board.

Abnormally cheap Government money will not be available to farmers themselves or to their local co-operatives which are in competition with local private dealers. By the time the Government credit flows through the arteries of central co-ops, then through the capillaries of the regional and local co-ops to the farmer, the money will accumulate costs so that the rate to the farmer will be comparable to the private rate. Nevertheless, the boon of ample cheap money to co-operative systems, as distinguished from existing private marketing systems, is certain to give the co-ops a big advantage over private competitors.

Banking and bankers will not be much affected. Private credit available from them will be used to the maximum, and Government credit will be essentially supplemental. This is an important point of Farm Board policy, not required specifically by the law, therefore indicative of Farm Board conservatism.

"Orderly marketing" is the slogan of the Board. This means perfection of the mechanics of distribution under natural laws of supply and demand, with some qualifications and exceptions. It means that the Board does not look with favour on expedients commonly called "artificial." Stabilisation corporations, for example, are not favoured by the Board and will not be countenanced for an indefinite time in the future. This is displeasing to those farmers who adhere to the equalisation fee and export debenture schools of thought, but it is reassuring to conservative private interests.

For the present, the Farm Board is concerned primarily with creating new co-operative machinery for distributing what farmers raise. Later it will give attention to the problem of how to get farmers to raise less of those crops of which a national surplus exists. This is a psychological, economic, statistical, social, philosophical and educational problem, which will not be settled in less than a decade or two or three.

The Farm Board is faced by a condition of universal surface sympathy accompanied by universal scepticism and suspicion. Open minds are accompanied by crossed fingers among practically all groups affected by the Board and its policies. This refers quite as much to farmers as to private business interests.

It is obvious that no one knows or can know at this time how

the whole situation will turn out. There are sincere convictions both ways or all ways, but there is no basis for demonstration that any are right. This is deliberately stated in such a negative fashion in order to destroy the desires on the part of many persons to be told precisely what will transpire from this new national policy—undoubtedly the greatest economic experiment ever undertaken in the United States.

The Law

In order to understand the Farm Board and its policies, it is necessary to consider first the law, the Agricultural Marketing Act. This measure was passed by Congress after eight years of agitation by farmers for "equality," and was substituted for the equalisation fee principle. There are those who regarded McNary-Haugenism too radical an experiment for this conservative country, and some of those now think it would have been less radical than the law finally agreed upon as a compromise.

The Agricultural Marketing Act does not put the Government into the business of handling farm products, but it does put the Government into the business of creating co-operative marketing agencies of farmers which ultimately are expected to dominate their respective crop markets, and of financing these agencies, and of supervising all their activities when they are borrowers. The Government, acting through the Farm Board, becomes a sort of holding and management corporation, with a whole flock of co-op distribution companies under its wing. The Government will not dictate each act, but it will supervise and advise. When recommendations are offered by a body which is lending capital, the advice is likely to be accepted.

Thus the Government will be in position to say, in substance: This is the price for which to hold; this is the price at which to sell; this is the line of expansion; here are the private physical facilities which should be bought or leased; this is the fair price; this is the proper contract; here is the money with which to do all these things.

A legalistic analyst of the Agricultural Marketing Act will find in its blanket powers for the Federal Farm Board to do almost anything in the line of reorganising the marketing of agricultural products, followed by certain blanket limitations, qualifications and provisos. Much of this is political rhetoric, yet the time will come when the rhetoric must be interpreted as to original legislative intent. Here lies the joker, and also the cause for thanksgiving that the Farm Board as now constituted is conservative.

For example, the Government might finance farmers' co-ops in the manufacture of flour, breakfast foods, cotton yarn, woollen clothing, linseed oil, bacon, lard, noodles and granulated sugar. These are not exaggerations; the Farm Board could do precisely this, if it chose, but it chooses not to do so.

The principal functions of the Board, for immediate consideration, are these : (1) to minimise speculation ; (2) to prevent waste in distribution ; (3) to aid in preventing and controlling surpluses ; (4) to encourage the organisation of " producer-owned and producer-controlled co-operative associations."

The first function, to minimise speculation, is too big a job to be tackled off-hand, and the Board is approaching the matter solely through machinery of co-operative marketing associations which in themselves are expected to minimise the theoretical bad effects on the farmer of speculation.

The second function, to prevent waste, is also a big and long-time job and is being approached through co-operatives.

The third function, to prevent and control surpluses, involves two things—limitation of acreage, for which present plans are very vague ; and manipulation of a national surplus so that the domestic price might be higher than the world price. This is tied up with the subject of stabilisation corporations, and the Farm Board is strongly opposed to these, although many farmers' groups want them and criticise the Board for its lack of interest.

The fourth function, to encourage organisation of co-operatives, is really the big point of the immediate programme.

Emphasis should be given the Board's intention to focus on big central agencies which can dominate their respective commodities rather than on small local co-ops. The Board is devoting principal attention to terminal market agencies, permitting the hinterland co-operative agencies to fall into the programme in due course.

Loan Policies

Many specific powers of the Board to accomplish its purposes may be ignored in the present discussion and attention directed to the lending of Government money. A sum of \$500,000,000 was authorised by Congress. A sum of \$150,000,000 was actually made available for use. Of this latter amount, the Board has agreed to lend approximately \$53,000,000, but it has actually paid out less than \$12,000,000. The loan policy is not made, but is in process of making, and it provides most of the current controversy.

Four kinds of loans can be made :

(1) For clearing house associations. These are contemplated

mainly for fruits and vegetables, but no plans for them have been made and no loans considered.

(2) For financing membership extension movements by co-operatives among farmers. No loans for this purpose have been made, but a comparable purpose is supposed to be served by the supplemental loans, mentioned below, under (4).

(3) For enabling co-operatives to acquire physical facilities, such as warehouses, processing plants, elevators, etc. A very few of these have been made and in small amounts. They are to be repaid by amortisation in twenty years.

(4) For enabling co-ops to advance to their members a larger proportion of the market value of produce turned into the co-op by the member than would be possible under other financial arrangements such as private bank loans and intermediate credit bank loans. These are the "supplemental loans" which are the subject of so much discussion at present, particularly on wheat. They require some detailed explanation.

Supplemental Loans

One difficulty co-operatives have always had in competing with private buyers of farm produce is that the co-ops cannot advance to members (farmers) as large a proportion of the value of produce as the private dealer can pay in an outright sale. Many farmers consequently have preferred to sell their crops, get their money and close the sale with private dealers rather than to deal with co-ops, which, by holding, might expect to obtain ultimately a higher price.

It is now proposed to overcome this difficulty through Farm Board loans which may be piled on top of credit obtained from other sources, such as private banks and intermediate credit banks. The Government loans thus "supplement" the other loans.

These supplemental commodity loans have been made by the Board mainly to relatively big co-ops at the rate of around $3\frac{1}{2}$ to $3\frac{5}{8}$ per cent. The big co-op is then expected to make loans of its own to subsidiary local co-ops *at a higher rate*, sometimes being as much as 2 per cent. above the Government $3\frac{1}{2}$ per cent. rate, totalling up to $5\frac{1}{2}$ per cent. The local co-op then uses these funds to increase the advance to individual farmer members. Thus, these advances are loans and not outright payments. The farmer pays interest on them at the rate of perhaps $5\frac{1}{2}$ per cent., and a comparable rate is borne by other loans obtained from private banks or intermediate credit banks. The local independent

dealer must pay around 6 per cent. for his money, but it is apparent that there is not a wide difference between the costs of money to the local neighbourhood co-op and to the competing private dealer. Of course, any saving in interest charges by the regional or central co-operative, of which the local co-op is a member, ultimately will be passed back to the local.

The benefit of cheap Government money to the local co-op in its competition with private dealers is not so concrete, therefore, as has been indicated by uproarious protests from the grain trade. It was over this subject that the recent flurry occurred between Chairman Legge of the Farm Board, Chairman Barnes of the Chamber of Commerce of the United States, and Chairman Caraway of the Senate lobby investigating committee. The situation still is much misunderstood.

How Supplemental Loans Work

How the system actually works can be shown best by an example in wheat. The farmer co-op member takes his grain to his association and is given the choice of three methods of disposal. He can sell it outright for the market price, he can pool it, or he can warehouse it for future sale and receive practically the market price in a cash advance. The top layer of this cash advance is the Government supplemental loan.

Here enters what is popularly called the "pegged price" of wheat. Early in the present marketing season, the Farm Board declared that on the basis of world supply, wheat was too cheap, that if farmers could hold their wheat off the then glutted terminal markets the price would rise. To enable farmers to do this, and at the same time receive cash for their grain, the Board announced loan bases for the ten important terminal markets, based on a price of \$1.18 at Chicago. This meant that a co-operative, after borrowing all it could from other sources, could then use enough of the Board's money to enable it to make up \$1.18 and to pay this to the farmer. Theoretically, this is not "pegging," but the practical effect has been that enough wheat owners withheld their produce from the market so that the market prices have coincided quite closely with "loan basis prices."

The truth is that very few of these supplemental loans have been made. Farmers and co-ops have held for \$1.18 (other prices at other markets) merely because of the moral effect of the Board's minimum price declaration, and this is one of the earliest examples of the Board's tremendous influence on prices. It shows that the money power may be exercised without always

lending the money. The test of whether the Board guesses right or guesses wrong on price remains to be made, although the current price of wheat suggests that the Board was right in saying two months ago that \$1.18 was an economically proper minimum price for wheat.

Grain Corporation

The Board caused to be organised the Farmers' National Grain Corporation with \$10,000,000 capital, headquarters in Chicago and offices in all principal grain terminal markets. It is destined to be the farmer-owned, farmer-controlled, but Government-supervised central agency for *controlling* the wheat market of the United States. It is the agency to which Government grain loans will be made wholesale at $3\frac{1}{2}$ or $3\frac{3}{8}$ per cent., and through it the loans will find their way down to the farmer. The idea is that this corporation ultimately will actually handle a large proportion of the grain crop, some say 40 per cent., but this is a matter of time, growth and experiment. The grain corporation is typical of other central marketing agencies which will be set up—one for each commodity.

Nobody knows how long it will take the grain corporation to acquire control of the crop, but some officials think in terms of five years. It is largely a problem of getting regional co-operatives to engage the Farmers' National as its terminal agent.

While discussing grain, it may be well to say that it is a common question as to whether the whole system under the Farm Board will result in the stimulation of production. Many serious thinkers fear this will be the case, but the disposition of the Farm Board is to feel that conservative management and policies, accompanied by acreage limitation to be attempted some time hereafter, will counteract any tendency towards expansion of production, not only in grain but in other crops.

Cotton

The reorganisation of marketing facilities for cotton is comparable to that for grain, although perhaps a little simpler. A central sales agency for cotton, like the Farmers' National for grain, will shortly be established. The Federal Farm Board already has approved the organisation plans for the proposed \$30,000,000 National Cotton Corporation. This agency will be able to buy large stocks of cotton outright, thus giving it a distinct advantage over local co-ops which have been prohibited by state laws from buying cotton; they can only *market* for their farmer members.

For cotton, as for wheat, a minimum "loan basis price" has been set, thereby providing the foundation for a claim that the Farm Board has also "pegged" cotton. The price is 16.59 cents per pound at New Orleans, and varies with other markets. Cotton prices have hovered near this point.

Dairy Products

When applied to dairy products, Farm Board prospective policies run smack up against the several large national dairy products combinations sometimes called "trusts." Will or will not the new system undermine these private companies? The answer probably is "No," although this is based more on broad speculation than on any definite information from the Farm Board. A refinement of the question is this: Will the Farm Board finance co-operatives in doing retail business?

The Board apparently has no such practical intention, despite the fact that it has authority to do so under the law. The Board probably will limit itself to aiding in the building up of dairy co-ops, which will bring their products to the city gates. It might seem to follow logically that this will lead eventually to retail distribution by co-operatives having the benefit of cheap Government money which their private competitors do not have. Expediency probably will dictate a Board policy of refraining from encouraging such retail business, however.

This conclusion is not four-square with the Board's loan to a Cleveland milk producers' co-operative, but that case is not considered a precedent and has attracted more national attention than it truly deserves.

There is a strong feeling that the dairy "trusts" are so strongly entrenched, and have such efficient distributing systems, that they will not be undercut to any material extent by Government subsidised co-ops. The fate of small independent distributors is not so clear. It is possible that many of them will eventually be forced out of business or employed as agents of co-operatives. It is really too soon to form any definite conclusion.

It is doubtful whether a single national co-operative sales agency will be created for the dairy industry. It is more likely that regional co-ops, associated with a national clearing house for dairy products, will develop.

Other Commodities

LIVE-STOCK.—A central sales agency for live-stock is being organised, but co-op internal politics have seriously delayed it.

WOOL AND MOHAIR.—A central co-operative agency is about ready to be incorporated. The price of wool probably will not be affected.

FRUITS, VEGETABLES.—This is a complex industry, and it is still a question whether separate corporations should be organised for each fruit and vegetable, or at least related crops; whether a big national organisation can handle all, or whether the problem will be met by a clearing house. Certainly the clearing-house plan will eventually become necessary.

There are so many small dealers and commission men in fruits and vegetables that it is inevitable that many will be driven out of business in future years.

So far, ten commodities have been designated by the Board as lines in which co-operative organisation will take place first: Grain, live-stock, wool and mohair, cotton, dairy products, rice, tobacco, poultry and eggs, seeds and potatoes.

Secondary Effects

Part of the underlying theory of the Farm Board and its system is that within a few years many reforms will be effected in the marketing of agricultural products by private agencies themselves, acting under the threat of intrusion by Government-aided co-operatives. It is felt that private dealers who are now suspicious and "offish" will be either whipped or lured into some sort of voluntary co-operation with co-operatives. Such a spirit is certainly not apparent at the present time.

It should be borne in mind that the Agricultural Marketing Act directs the Farm Board to work out reforms in marketing in any way possible and does not limit it solely to co-operative institutions.

It will soon be evident that the Farm Board in its capacity as banker will impose close supervision over the co-operatives. Government supervision is not relished, even by those co-ops which need money. Anticipation of supervision is now making some of the better organised co-operatives reluctant to apply for loans.

More Money for Farmers

While engaging in fancy discussion on ways and means of improving distribution, it should not be forgotten that the plain purpose of the new system is to put more money into farmers' pockets, thus giving them "equality."

In most lines the actual profit margin in marketing or distribution is not large. By securing this distribution profit for

himself the producer will not find his income spectacularly swelled. The fruits of the new system are expected to come rather from the "orderly marketing" which the Board thinks it can promote. The implication is that at present the marketing system controlled mainly by private agencies is "disorderly" in some lines and in some degree. Each unit may be efficient enough in itself, but the disorder arises out of lack of adequate national machinery, national co-operation of private agencies. Perhaps co-operation may be infused into privately owned and operating systems. "Unified effort" is the term.

Co-Ops at Present

The history of co-operatives is full of vicissitudes. Ten years ago the whole co-operative movement was considered radical and socialistic, and Government encouragement of them was regarded as dangerous. They went through a period of rapid development, many being organised from the top down instead of from the bottom up. Most of these which sought to manipulate the market by year-to-year holding failed in the one way or another, one common reason for failure being that production was stimulated until it overflowed normal channels of distribution.

At present there are 11,400 farmers' co-operative associations in the United States, most of them being local and small. There are very few big regional groups and only one or two which might be considered national.

In 1928, all the co-ops marketed produce valued at \$2,300,000,000, as compared with the value of all crops of \$9,000,000,000. The two figures are not comparable, but merely indicate that the co-ops handle a small proportion of the total farm produce.

INCREASING RETURNS AND THE REPRESENTATIVE FIRM

A SYMPOSIUM

Note by the Editor.—A number of articles have appeared in recent issues of this JOURNAL dealing with one aspect or another of the problem of Increasing Returns in economic equilibrium, and of the Marshallian device of the Representative Firm. We may mention more particularly the following :

Piero Sraffa : The Laws of Returns under Competitive Conditions, *December* 1926, Vol. XXXVI. p. 535.

A. C. Pigou : The Laws of Diminishing and Increasing Cost, *June* 1927, Vol. XXXVII. p. 188.

A. C. Pigou : An Analysis of Supply, *June* 1928, Vol. XXXVIII. p. 238.

G. F. Shove : Varying Costs and Marginal Net Products, *June* 1928, Vol. XXXVIII., p. 258.

Lionel Robbins : The Representative Firm, *September* 1928, Vol. XXXVIII. p. 387.

Allyn Young : Increasing Returns and Economic Progress, *December* 1928, Vol. XXXVIII, p. 527.

But perhaps the discussion may be said to have been begun on broader lines by :

J. H. Clapham : On Empty Economic Boxes, *September* 1922, Vol. XXXII. p. 305.

A. C. Pigou : Empty Economic Boxes, a Reply, *December* 1922, Vol. XXXII. p. 458.

D. H. Robertson : Those Empty Boxes, *January* 1924, Vol. XXXIV. p. 16.

And reference may also be made to :

J. A. Schumpeter : The Instability of Capitalism, *September* 1928, Vol. XXXVIII. p. 361.

Some further discussion of the matter has now been invited by the Editor in the form of the following symposium. We begin with a partial rehabilitation of Marshallian orthodoxy on conservative lines by D. H. Robertson, proceed with some negative and destructive criticisms by Piero Sraffa, and conclude with constructive suggestions by G. F. Shove.

THE TREES OF THE FOREST

"She was rambling on in this way when she reached the wood: it looked very cool and shady. 'Well, at any rate it's a great comfort,' she said as she stepped under the trees, 'after being so hot, to get into the—into the—into *what*?' she went on, rather surprised at not being able to think of the word. 'I mean to get under the—under the—under *this*, you know!' putting her hand on the trunk of the tree. 'What *does* it call itself? I do believe it's got no name—why, to be sure it hasn't!'"—*Through the Looking-Glass*.

§ 1. THESE notes owe their origin in the main to the interesting article ¹ in which Mr. Lionel Robbins questions the necessity and usefulness of Marshall's doctrine of the Representative Firm. But in the course of them I shall be led also to comment on some of the recent developments in that difficult branch of economic theory—the Theory of Increasing Returns.

I shall not attempt to debate Mr. Robbins' article, with some of which I am in agreement, point by point, but will rather set out positively the reasons why the Representative Firm still seems to me to be a fruitful and indeed an indispensable instrument in the construction of a theory of value.

I

§ 2. First, it seems to me essential to a right understanding of the relation between profits and normal costs of production. Mr. Robbins denies this on the ground that it is no harder to formulate the conditions of equilibrium on the assumption of unequal managerial ability than on the assumption of unequal manual skill or unequal fertility of land. "What is normal profit for one [business man] is not normal profit for another, that is all. . . . All that is necessary for equilibrium to prevail is that each factor shall get at least as much in one line of production as it could get in any other" (p. 393). Now it is fair to admit that I have delivered myself into Mr. Robbins' hands in this matter. For the special purposes of my difference with the Colwyn Committee I laid stress, in the passage which Mr. Robbins does me the honour to quote (p. 391, n. 2), on the "normality" of the representative firm in respect of the personal efficiency of its management. This was sufficient for the matter in hand: and there are reasons, to which I will return later, for emphasising in certain connections this property of the representative firm. But

¹ ECONOMIC JOURNAL, Sept. 1928. The page references are to this article except where otherwise stated. I am, I think, in Mr. Shove's debt in connection with the ideas in the first part of my article; and in Mr. Sraffa's for saving me from a mathematical mistake in the second.

a careful reading of Marshall's exposition (*Principles*, p. 317), quoted by Mr. Robbins, p. 388) shows that it is not its only, nor even, I think, its most important, property. The entrepreneur who is "just struggling into business, who works under many disadvantages and has to be content for a time with little or no profit," is not necessarily a man of sub-normal personal capacity. Nor is the entrepreneur in charge of a mature firm who is facing a run of bad luck; nor the entrepreneur who is doing his best to keep above water the head of an obsolete or top-heavy concern. But—and this is the point—if we fixed our gaze on the profits—or losses—made by any of these people we should get a wrong idea of the rate of profit required to attract *any given grade of business ability* into the trade, or into entrepreneurship in any trade, and to be counted therefore among the normal costs of production. Some trees are tall, says Marshall, and some short. Yes, replies Mr. Robbins, because some are oaks and some are hawthorns. True, but not the whole truth: some oaks are taller than other oaks, and some hawthorns than other hawthorns.

§ 3. I do not, however, agree that the notion of representativeness in respect of personal capacity is unhelpful. To get the issue clear, let us ignore the considerations set forth above, and suppose that *all* differences in the fortunes of firms are due to differences in personal capacity. The less capable entrepreneurs operating in an industry at any time can be divided in thought into two classes—those who, while less competent than some of their fellows, can maintain a durable footing in the industry and make a modest but sufficient livelihood, and those who are so incompetent that they are on the road to elimination. The latter class will (under our assumed conditions) include all those who are making zero or negative profits and some of those who are making positive profits. It is the former class of whom Mr. Robbins is thinking when he urges that the costs incurred by them are as relevant to the determination of value as the costs incurred by more able producers: it is of the second class that Mr. Henderson is primarily thinking when he states, in the sentence which I quoted and venture to quote again with approval, that "the marginal concern must be conceived as that working under the least advantageous conditions in respect of the assistance it derives from the strictly limited resources of nature, but under average conditions as regards managerial capacity and human qualities in general" (*Supply and Demand*, p. 60).¹ But on

¹ In Mr. Robbins' citation, a nonsense-making "not" has accidentally crept in after the fourth word.

re-reading the rest of the paragraph in which this sentence occurs, I concede to Mr. Robbins that it is unfortunately expressed, though I think it unlikely that Mr. Henderson has fallen into the blunder of "assuming that in a long period adjustment all producers are at least of average ability." What Mr. Henderson says is, "There is likely to be available a supply of decent business capacity which can be substituted for the most inefficient of existing business men." It would have been better if he had said, "There is likely, human nature being what it is, to be a continuous flow into industry of business men of sub-normal capacity, so that as any one of them is driven to give up the struggle by the competition of more capable persons, another, doomed ultimately to the same fate, can be relied on to take his place." But the correct inference would have been the same—that in estimating the costs (excluding profit) per unit of a commodity, we shall be in danger of drawing wrong conclusions if we look at the costs incurred by producers on the road to elimination, even though between them such producers may always be contributing a quite appreciable proportion of the supply. Supposing, for instance, as may very well happen nowadays, we are going in for a bit of State interference with prices, we shall be in danger of fixing prices unnecessarily high. But we shall *not* get into any similar peril by fixing attention on the costs incurred under the least favourable natural conditions.

§ 4. And having of necessity gone so far in contracting the field of our vision, is there not much to be said for going further, and temporarily averting our gaze from the costs incurred by the more sessile type of less capable producers as well? Unless we are determined to reject altogether the Marshallian method of what Mr. Robbins terms *partial equilibria*, there seems to be a good deal of advantage in so doing. That method consists in building up the supply schedule for a commodity by aggregating the supply schedules for the requisite quantities of the various factors of production (Marshall, *Principles*, pp. 339, 343); and in following it out it is at the least of high convenience to be able to speak of the labour-costs, interest-costs, etc., per unit of product for any given scale of output as having an unequivocal meaning. Nor does the usefulness of this procedure seem to me impaired by the reflection, which seems to Mr. Robbins so damaging (p. 398), that a given individual firm which is representative of an industry under certain conditions may become unrepresentative if conditions change while the firm itself remains unchanged.

I concede, however, that the case for holding the Representative

Firm to be worth its keep as an engine of exposition is strengthened if we can bring ourselves to regard it as being at any moment not merely a sort of ghostly epitome of conflicting tendencies, but also in some sense a type or mode. I am glad, therefore, to be able to cite Professor Pigou's opinion (*Economics of Welfare*, 3rd ed., p. 788, n. 1) that Marshall's representative firm is meant to be "a firm of, in some sense, average size . . . a typical firm, built on a scale to which actual firms tend to approximate," and that there is good evidence that "this conception is appropriate to actual conditions." Accordingly, I do not share Mr. Robbins' view that the device is useless for the purpose of "the simplification of practical inquiry." Of course, for those who are capable of using it, a scheme of distribution about an average is always a prettier tool than a bare average. Of course, too, we must be careful: even if cyclical movements are eliminated, the *realised* profits of a modal firm in an industry which is undergoing progressive expansion may continuously exceed its expected profits, thus giving rise to something analogous to pure rent, which American writers have called "pure profit." I doubt if Marshall was ready enough to recognise this; but I do not think his conservatism in this respect seriously impairs the sharpness of the instrument which he forged.

§ 5. But there is a further point. So far at any rate as the "sessile" entrepreneurs of inferior capacity are concerned, I have hitherto tacitly accepted Mr. Robbins' view that all that can be said about their supply-price is that their reward in the industry under examination must be at least equal to what they can get elsewhere. But, as Marshall points out (*Principles*, p. 578), there is an important distinction to be drawn between differences in the fertility of land and differences in the capacity of human beings. Hawthorns do not suppose themselves to be oaks; but persons who turn out to be of inferior capacity are often painfully surprised. "A great part of a person's success in any occupation depends on the development of talents and tastes, the strength of which cannot be clearly predicted unless he has already committed himself to a choice of occupation." Thus from one, and perhaps the most important, point of view there is no such clear distinction as might at first appear between differences in personal capacity and those differences in circumstances which were discussed in § 2. "A youth when selecting an occupation, or his parents when selecting one for him, are very far from leaving out of account the fortunes of successful men." From this point of view the profits of men of *normal* capacity can truly and helpfully be regarded as

the supply-price of men of super-normal and sub-normal capacity as well.¹

II

§ 6. I pass on to more difficult matters. The concept of the Representative Firm is, in my judgment, essential to an understanding of the theory of increasing returns. I have not been able to understand the passage (pp. 398-9) in which Mr. Robbins denies this, and am compelled, therefore, to approach the whole matter *ab initio*.

The root difficulty about increasing returns has always been to understand how, where they prevail, equilibrium can exist without the whole supply of the commodity in question becoming concentrated in the hands of one producer. It will, I think, be convenient to tabulate the various ways of tackling this problem which have been adopted by recent authorities.

(1) Some writers, including Professor Schumpeter,² deny altogether the validity of the so-called long-period descending supply-curve. Such a curve, they hold, can only represent a record of historical events, and not—as a true supply-curve should—a series of conditional sentences. This seems to be a counsel of despair, which Marshall considered and rejected (*Principles*, p. 459 n.).

(2) Mr. Sraffa has argued (*ECONOMIC JOURNAL*, 1926, pp. 335-50) that the theory of competition is unequal to dealing with the problem, and that though monopoly in the ordinary sense does not prevail, recourse must be had to the theory of monopoly, which will yield a determinate result (*loc. cit.*, p. 548). As Mr.

¹ The object of pooling arrangements is, or may be (for, of course, they sometimes aim at the exaction of monopoly profits), to establish competitive equilibrium without the cruelties of actual competition. While, therefore, it is a valid argument against such schemes that these may tend to penalise efficiency, it is *not*, in my judgment, a valid argument that under them "some of the customers would be getting their stuff at less than it actually cost to produce it" (Pigou, *Economics of Welfare*, 3rd ed., p. 241 n.). For even if by cost we mean, as I think Professor Pigou does in this connection, cost excluding profit, exactly the same thing is true under ordinary competition so far as there are always some producers who for one reason or another are producing at a loss. And if, in accordance with the arguments of §§ 2 and 6, we count among the "costs" of sub-normal firms the profits which they had *expected* or are still expecting to obtain, the same thing is true under ordinary competition of the whole of the output of such firms. Thus the alleged difference between pooling arrangements and actual competition does not exist.

² *ECONOMIC JOURNAL*, 1928, p. 367. Cf. Silberling, "Graphical Illustrations of the Laws of Price," *American Economic Review*, Sept. 1924, pp. 431, 436. I regret that in my article in the *ECONOMIC JOURNAL*, 1924, I capitulated to this view as regards certain kinds of increasing return.

Sraffa points out, Marshall himself uses this device as an auxiliary weapon.¹

(3) Professor Pigou, in his treatment of the problem, appears for a long time to have relied mainly on the possibility that external economies of large-scale production, of the kind described by Marshall (*Principles*, pp. 266, etc.), may exist on so important a scale as to bring it about that while each individual firm is working under conditions of diminishing return, the industry as a whole is working under conditions of increasing return (*Economics of Welfare*, 1st ed., p. 940). In a qualifying phrase in the second edition (p. 745), and in a reply to the present writer in the *ECONOMIC JOURNAL* (1924, p. 31), a loophole seemed to be left for the action of internal economies of large-scale production even under competitive conditions. But in 1927 the door was closed again. "Reductions in cost," Mr. Sraffa had written in 1926, "connected with an increase in a firm's scale of production, arising from internal economies or from the possibility of distributing the overhead charges over a larger number of product units, must be put aside as being incompatible with competitive conditions." "What [Mr. Sraffa] says about internal economies," conceded Professor Pigou in 1927, "must be accepted. The representative firm must be conceived of as one for which, under competitive conditions, there is, at each scale of aggregate output, a certain optimum size, trespass beyond which yields no further internal economies" (*ECONOMIC JOURNAL*, 1927, p. 195). He proceeded to argue, in opposition to Mr. Sraffa, that external economies of the usual type are adequate to produce compatibility between the prevalence of competitive conditions and the prevalence of increasing returns. There for a time the matter rested.

(4) Professor Allyn Young, in his address to the British Association (*ECONOMIC JOURNAL*, 1928, pp. 257-8), extended the conception of external economies to include those cheapenings of cost which occur as the result of "the progressive division and specialisation of industries," which is "an essential part of the process by which increasing returns are realised." We are bound, for instance, to take into account not merely the reduction in the costs of the typical cotton-weaving concern which arises out of the improvement of cotton-weaving machines, but the reduction in

¹ "When we are considering an individual producer, we must couple his supply-curve, not with the general demand-curve for his commodity in a wide market, but with the particular demand-curve of his own special market." *Principles*, p. 458, n 1.

the costs of cotton goods which arises out of the differentiation of cotton-spinning from cotton-weaving. As thus glorified, external economies would certainly seem to become more nearly capable of bearing the burden laid upon their shoulders by Professor Pigou.

(5) Meanwhile Professor Pigou's own mind seems to have moved in the same direction. In the imposing structure first presented in this JOURNAL (June 1928), and afterwards embodied in the third edition of *Economics of Welfare*, he makes it plain, like Allyn Young a few weeks later, that the costs of an individual firm may be lowered owing to its own increasing specialisation, this latter phenomenon in turn being due to the growth in size of the whole industry, and thus properly regarded as an external economy. But he takes a further step. This growing specialisation, he says, is quite probably (though not necessarily) accompanied by an increase in the size of, and therefore in the internal economies of large-scale production enjoyed by, the individual firm. Thus we are introduced to an important hybrid type of economy of large-scale production—the external-internal, whose nature is such that it emerges as a result of those, and only of those, increases in the size of the individual firm which are directly caused by increases in the size of the industry as a whole.

The ingenuity of this analysis is considerable. For it makes some concession to the insistent claim of common-sense that what are usually thought of as internal economies of large-scale production have something to do with increasing returns under competitive conditions, without surrendering the mathematicians' central position—that increasing returns are incompatible with competitive equilibrium unless the representative firm is working under such conditions that it has no motive to take the initiative in increasing its own output. Since Mr. Robbins never (so far as I can make out) mentions the existence of the dilemma which has given rise to all this pother, it is much to be desired that he should tell us whether he is satisfied with Professor Pigou's solution, and if so how he holds that it could have been attained without the device of the representative firm.¹

§ 7. My own feeling is that Professor Pigou's present analysis is, like its predecessor, a *possible* method, and that, owing to the broadening of the conception of external economies, it is, unlike its predecessor, a *plausible* method, of reconciling the contradiction; but that it is not the line of approach which springs

¹ For the sake of continuity, I venture to adhere to this phrase. The reader should consult Professor Pigou's own explanation of the difference between his "equilibrium firm" and Marshall's "representative firm" (*op. cit.*, p. 788 n.).

most naturally either out of Marshall's suggestions or out of the observed facts. It must be remembered that where external (including the new external-internal) economies of large-scale production are absent, it is still impossible, under Professor Pigou's analysis, for competitive equilibrium to coexist with increasing returns (*op. cit.*, p. 793). The value of the concession made to common-sense depends, therefore, on how many of the observed internal economies of large-scale production we can fairly speak of as being caused by expansions in the size of the whole industry. Now it is doubtless true, as Marshall and Pigou observe, that the growth of an industry and the growth of its constituent firms frequently proceed more or less *pari passu*. But it seems to me rash to infer from this that the bulk of the observed internal economies of large-scale production are of the derivative nature which we are invited to suppose. One might as well argue that the growth in the individual bones of a baby are the result of the growth in its skeleton. If we take an increasing return industry which is out of equilibrium, with demand price in excess of supply price, and watch its progress towards equilibrium, we must surely conclude that frequently the main factor in this process is the scramble by individual firms, regardless of the actions of their neighbours, to reap the direct advantages of large-scale organisation and plant—advantages which have always been obvious and are in no sense being brought into existence, either through the medium of increased specialisation or in any other way, by the growth in the output of the industry as a whole. The question is whether this process, which admittedly does not always end in the abandonment of competition, can or cannot be played upon by the mind with any success without abandoning the *theory* of competition.

§ 8. Professor Pigou holds that it cannot, and therefore appears, at least, to ignore its occurrence. Mr. Sraffa holds (or held in 1926) that it cannot, and therefore invokes the theory of monopoly. I venture to suggest that Marshall, while not rejecting Professor Pigou's external economies and Mr. Sraffa's monopoly theory as auxiliary weapons, held that it could. But he did not pretend that it was easy; and the famous metaphor of the trees of the forest was meant, as it seems to me, to assist the reader in making a more violent effort of the imagination than most of those who have quoted it have realised. The matter can best be explained with the aid of individual cost-curves of the type designed by Professor Pigou.

Suppose an industry in which there are no external economies

of any kind. Then in equilibrium, says Professor Pigou, price must equal both the average costs and the marginal costs of the equilibrium firm (PM, Fig. 1), which is therefore working under conditions of increasing cost : while the industry as a whole cannot obey the law of increasing returns. I suggest that Marshall thought that equilibrium might be legitimately conceived with the representative firm working under conditions of decreasing cost, with price equal to the average costs of that firm (PM, Fig. 2), and with the industry as a whole obeying the law of increasing returns. That, says Professor Pigou, cannot be ; for with a price PM in excess of its marginal costs QM, the representative firm will have an inducement to expand its output, and therefore equilibrium will not exist. But that, it seems to me, is where the trees of the forest come in—certainly, in Marshall's text

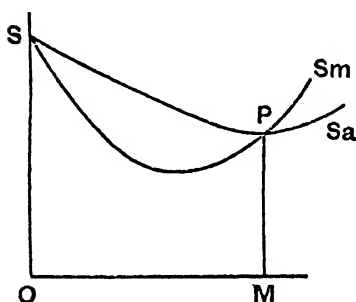


FIG. 1.

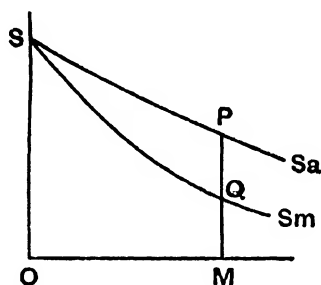


FIG. 2.

(*Principles*, p. 317), that is exactly the point of the argument—an apparent *impasse*—at which they are introduced. *There is no identifiable entity, with a continuing will and purpose of its own, which has both the power and the inducement to expand its output,—that is the point.* Messrs. Smith and Robinson are at the moment a representative firm—they have all the concrete properties—normality of size, efficiency, etc.—commonly thought of as belonging to the Representative Firm ; but they have *not* the latter's quality of being able to expand output indefinitely at a lowered cost per unit. That quality belongs to no firm whose name is to be found in the directory. If we may risk another metaphor, Messrs. Smith and Robinson are a collection of water-drops at this moment forming part of a wave, and sharing all the obvious physical properties of the wave—its colour, saltiness, present location in space, etc.—but not its continuity of existence with the wave of five minutes later. Hence we can truly make certain statements about the wave (such as that it travels at so many miles per hour)

which we could not truly make about the water-drops called Smith and Robinson. And the fact that "*the Representative Firm*" is to be conceived of as working under conditions of decreasing cost proves not incompatible with the fact that Messrs. Smith and Robinson will never obtain a monopoly of the whole trade.

To put the same point in another way. On my view, it is not necessary to suppose that under increasing returns the average cost-curve of the Representative Firm must alter its position or its shape (Pigou, *op. cit.*, p. 799) as the output of the whole industry alters, or to regard it as anything other than a small-scale replica of the supply-curve of the industry as a whole. All that is necessary is to be on one's guard against identifying it with the cost-curve of any firm whose name is to be found in the directory. I am quite aware that the position cannot be cleared up mathematically: so was Marshall, and issued stringent injunctions against making the attempt (*Principles*, p. 460). But I think it throws an ampler flood of light on the turmoil of what happens in real life than recourse to the notion that the baby's bones grow as the result of a growth in its skeleton.

To return, however, to Mr. Robbins. Professor Pigou uses the conception of the Representative Firm in one way, I suggest that Marshall meant it to be used in another, to tackle the puzzle of competition under increasing returns. Will Mr. Robbins tell us exactly how he proposes to tackle it, once he has cast the Representative Firm into the sea?

D. H. ROBERTSON

A CRITICISM

§ 1. The following comments on Mr. Robertson's paper refer only to the sections in which he deals with the problems of increasing returns.

Mr. Robertson, in paragraph 7 of his paper, undertakes to indicate a line of approach by which competitive equilibrium may be reconciled with a state of increasing returns (arising from internal economies) for the individual firms. In order to do this, he takes "an increasing return industry which is out of equilibrium, with demand price in excess of supply price," and finds that "the main factor" in its progress towards equilibrium is "the scramble of individual firms . . . to reap the direct advantages of large-scale organisation and plant," advantages which have nothing whatever to do with "the growth in the out-

put of the industry as a whole"; in other words, the main force in operation is that of individual increasing returns (*i.e.* internal economies).

Whereupon he proceeds to ask whether this process "can or cannot be played upon by the mind with any success, without abandoning the theory of competition." To this question, those who regard competitive equilibrium and a state of individual increasing returns as contradictory assumptions, give a negative answer—so Mr. Robertson thinks.

But Mr. Robertson, I submit, is mistaken; for nobody gives that answer. If there is no equilibrium, it is not denied that internal economies may be the main force in operation (whether they are, or not, depends upon the kind of disequilibrium assumed): it is only denied that *in a state of equilibrium* they can be. Indeed, it is *just because* internal economies are regarded as one of the forces which make for equilibrium, that it is said that they cease to act *at the point of equilibrium*. For the expression "the point of equilibrium" is only a shorter name for describing the point at which those forces cease to act, being exactly counterbalanced by equal and opposite forces (in our case the disadvantages of increasing size balancing internal economies). Now, if Mr. Robertson thinks that internal economies are "the main factor" in the "progress towards equilibrium," how can he at the same time hold that they go on acting undisturbed beyond that point? If they do, the point will be passed unnoticed, and what we had called a point of equilibrium turns out, after all, not to have been one; and if they do not, the point of equilibrium will be the turning-point, where costs per unit cease to diminish and begin to increase, *i.e.* the point of minimum costs per unit.

Mr. Robertson appears to complain that this point of view under-estimates the importance of internal economies. I suggest that, far from this being the case, it is his own solution which, by regarding individual increasing returns as consistent with *any* state of an industry (in, or out of, equilibrium), necessarily excludes internal economies from being a factor in the determination of equilibrium.

§ 2. It is with some diffidence that I attempt to criticise Mr. Robertson's concluding paragraph; for the difficulties which he warns us to expect are not diminished, for students of economics, by the use he makes of analogies. At the critical points of his argument the firms and the industry drop out of the scene, and their place is taken by the trees and the forest, the bones and the skeleton, the water-drops and the wave—indeed all the kingdoms

of nature are drawn upon to contribute to the wealth of his metaphors.

If I rightly understand it, the argument wrapped in the analogies may be put as follows. Suppose that a change in the environment produces a change in the colour of an animal species, say from brown to white, through the operation of natural selection. We may then say that "the representative individual" has changed his colour, although not a single individual has changed colour during his lifetime. Similarly, if an increase in the demand for the product of an industry leads to its expansion, the industry, when the new equilibrium is reached, will be composed of larger firms producing at lower costs, as compared with the firms of which it was composed in the old position of equilibrium; but the new firms will not be the same firms which existed in the old state of things. Indeed, all the old firms may have perished in the process, being unable to expand their output, without an increase of costs per unit; the old representative firm, Messrs. Jones and Robinson, will have gone bankrupt owing to the competition of the new representative firm of Messrs. Smith and Brown, who produce a larger quantity at a lower cost than the former did. We may not say "an increased quantity at a decreased cost," for these new gentlemen have no past history to be compared with their present achievements. But the "representative firm" can be said to have increased its size and decreased its costs; for it is not a firm, but a position occupied by a firm, and while the occupant becomes another, the position remains the same.

Therefore, while a particular firm cannot be in equilibrium at a point of diminishing costs on its supply-curve because it would be driven to increase its output, the representative firm can be in equilibrium under similar conditions; because in its case an increase of the quantity produced implies (not an increase in the output of a particular firm, but) the substitution of a larger firm for a smaller in the representative position. So that each successive point on the supply-curve of the representative firm corresponds not only to a different quantity produced, but also to a different firm producing it.

If this represents the substance of Mr. Robertson's line of approach, I cannot see how it helps to reconcile the contradiction.

The argument, though differently expressed, remains the same: so do the objections. When individual firms retained their identity throughout the discussion, the question which Mr. Robertson had to answer was: "If firms could increase their output and

thereby reduce their costs—why didn't they increase it before the expansion of the industry? " Now that firms lose their identity, the question to be answered is: " If the new firms can turn out a larger output at a lower cost than the old firms, why didn't they come into existence before? Why in the new, and not in the old position of equilibrium? "

It is necessary to remember that external economies of every kind are supposed to be absent; and external economies include all the means by which a change in the output of the industry can affect the conditions of production of individual firms. Any increase in marketing facilities is excluded, perfect competition being assumed throughout. Therefore, an expansion of the industry cannot produce any circumstances which favour large firms; why then, if the expansion of the industry does not provide a reason, do the large efficient firms appear after the expansion, and not before?

The analogy with the colour of animals proves to have been a false one; for, in that case, in the new circumstances the white individuals were superior to the brown ones, whereas in the old circumstances the brown ones were superior to the white ones. But in Mr. Robertson's industry the big firms have the same superiority (lower costs) over the small ones, *both* in the old and in the new circumstances.

PIERO SRAFFA

I must make my comments on Mr. Sraffa's criticism as brief as possible.

§ 1. (1) He allows me to picture the representative firm rushing down the road of individual decreasing costs, while demand price rushes down the road traced out for it by diminishing utility. Does it not require something like a special interposition of Providence to ensure that the exact point at which these two roads (built by independent firms of engineers) cross is also the point at which the first road turns uphill?

(2) Because I regard diminishing utility as *always* operative, am I debarred from regarding it as a factor in the determination of equilibrium? And if not so with diminishing utility, why so with internal economies?

§ 2. Mr. Sraffa objects to my (and Marshall's) poetry, as I feared he would. But it does not require a sense of poetry, but only of human nature and of history, to refrain from asking—as in effect Mr. Sraffa asks in this section—why slavery was not

abolished or the Channel Tunnel built at the earliest moment at which the world would have been better for the change.

D. H. ROBERTSON

§ 1. (1) If Mr. Robertson asked my permission, I certainly should not allow him to have "demand price rushing down the road traced out for it by diminishing utility"; demand price is assumed to be constant with respect to variations in the output of an individual firm in a competitive market (this is merely the definition of free competition).

Therefore the two roads do not cross: one of them (the "market demand curve" for the products of an individual firm, which is a straight line parallel to the axis of X) is tangent to the other (the individual costs curve) at a point of minimum costs. This result does not require the intervention of Providence; it requires, however, that the assumptions underlying the whole of Marshall's analysis should not be forgotten.

(2) The analogy with diminishing utility is likely to prove confusing if taken literally; but it is close enough for the argument in hand. According to Marshall, the consumer is in equilibrium when the utility of consuming a further unit is exactly balanced by the cost of acquiring it; similarly, the firm is in equilibrium when the internal economies due to an additional unit of product are exactly balanced by the disadvantages of expansion—and this happens at a point of constant returns.

§ 2. Does stating that in equilibrium water in communicating vessels is at the same level, amount in effect to asking why rivers have not ceased to flow long ago? But I am not even stating as much. I am trying to find what are the assumptions implicit in Marshall's theory; if Mr. Robertson regards them as extremely unreal, I sympathise with him. We seem to be agreed that the theory cannot be interpreted in a way which makes it logically self-consistent and, at the same time, reconciles it with the facts it sets out to explain. Mr. Robertson's remedy is to discard mathematics, and he suggests that my remedy is to discard the facts; perhaps I ought to have explained that, in the circumstances, I think it is Marshall's theory that should be discarded.

PIERO SRAFFA

THE REPRESENTATIVE FIRM AND INCREASING RETURNS

§ 1. THE remarks which follow have developed out of a short note pleading for a change in the classification and labelling of "the external and internal economies of large-scale production." This reached the editor at the same time as the foregoing article and has, at his request, been recast in the form of a commentary upon it.

I

§ 2. I am in complete agreement with the main point made by Mr. Robertson in the first part of his article: viz. that the notion of a "representative firm" was intended to allow for much else besides differences in the ability of entrepreneurs. To say that a firm is "representative" implies, as he shows, much more than that it is managed with normal ability; and I am in general agreement with his account of what it *does* imply and of the part which the conception plays in Marshall's theory of competitive equilibrium. Nor do I deny for a moment that this ingenious device succeeds in its purpose: that it is *one* way of explaining what it sets out to explain and allowing for what it sets out to allow for. But when Mr. Robertson goes on to claim that it is *indispensable*, that it is the *only* way of explaining and allowing for these things, I part company with him and side with Professor Robbins. In my view, it is possible (and not difficult) to construct a theory of competitive equilibrium, based on the distribution of resources into the uses which their owners consider most advantageous, in such a way as to meet all the difficulties raised by Mr. Robertson without introducing the representative firm at all. The way in which, as I believe, the difficulties raised in the first part of his article should be met may be roughly indicated by a passage from an unpublished study of the relations between cost and output on which I have been engaged for some years.

§ 3. "The device of a 'representative' or 'equilibrium' firm is not used. [As Prof. Robbins has observed] this conception is not necessary to the theory of competitive equilibrium. But, if it is discarded, care must be taken to allow for those characteristics of long-period equilibrium which its inventor (Alfred Marshall) intended it to display. Of these the chief seem to be as follows.

"(1) If an entrepreneur has special aptitude or opportunities for the work in which he is engaged his earnings will be appreci-

ably higher than the return he could earn in any other occupation. Appreciably higher also than the earnings of other entrepreneurs in the industry having about the same general capacity, but without these special advantages. This rent of special aptitude or opportunity is compatible with equilibrium and admits of a wide variation in the rates of profit earned by individual entrepreneurs. Similar statements hold of employed workpeople and other agents of production.

"(2) In determining the actual earnings of individual entrepreneurs and other units of resources, the element of luck plays an important part. For this reason, even if we take entrepreneurs (or units of other resources) with exactly similar capacities and opportunities, we shall find wide differences in their earnings—since some will enjoy good, others bad fortune. What equilibrium requires is not equality of the *actual* earnings, but equality of the mathematical *expectation* of earnings (or more strictly the mathematical expectation of "net advantages") for similar units in different uses.¹

"(3) Quite apart from the element of luck, the profits of a firm are likely to be at different levels at different stages in its career: low perhaps when it is first struggling to get a footing, rising rapidly when it is becoming firmly established and is growing to its full stature, slowing down when it reaches maturity, and finally falling away again as the capacity of those in control begins to decline or the rigidity of routine sets in. Even assuming equal ability in the management and equal luck, there is no tendency for firms, whether in the same or different industries, to show the same rate of profit unless they are at the same stage of their development. The earnings of a skilled employee are likely to follow a somewhat similar course, beginning low when he is learning the trade, rising to a maximum when he becomes a fully equipped craftsman, and declining again as old age comes

¹ As Mr. Robertson observes, men tend to over-estimate their capacities and therefore their prospective earnings; and the choice of an occupation depends not so much on a man's *actual* prospects as on his *estimate* of them—on the "subjective" or "psychological" expectation of earnings rather than the "objective" or "mathematical" expectation. But this fact does not invalidate the statement made in the text. Provided that the owners' "subjective" expectations have a definite relation to their "objective" prospects, the supply of their resources can be treated as a function of the latter. For example, Mr. Robertson's incompetents who are "on the road to elimination" enter the trade because they believe themselves to have a good chance of making a positive profit of a certain magnitude, although in fact the expectation of earnings for entrepreneurs of their calibre is zero or negative. But, given their optimism, a zero or negative expectation is sufficient to attract them and may therefore be treated as the supply price of their services.

on. The same thing holds of some other agents. Hence the expectation of earnings which attracts a unit of resources to a given occupation must be calculated by reference to their probable course over its whole career, future prospects being appropriately discounted to allow for their distance in time.¹

“(4) Equilibrium for the industry as a whole does not imply that all (or indeed any) of the individual firms are in equilibrium : every one may be either expanding or contracting, provided that the rates at which the output of the growing firms is expanding and that of the declining firms contracting are such as to leave the aggregate output unchanged. Indeed, it is in the highest degree improbable that all or even a large proportion of the firms in an industry will be in equilibrium at the same moment, for at any given moment an established industry is likely to contain businesses at every stage of development. What is necessary for equilibrium is that a *general* expansion or contraction in the scale of the business unit should not be profitable. In other words, that it should not be profitable to concentrate the resources of the industry on a smaller, nor to distribute them over a larger, number of firms.

“The representative firm is an appropriate and indeed brilliant device for displaying these facts when we want to depict equilibrium as resulting from the rise and fall of individual houses of business ; but when, as in the present paper, we look at it as arising from the ebb and flow of resources of all kinds from one occupation to another, a different method of allowing for the same facts is called for.

“We must then say that the attraction exerted by a particular occupation on a particular unit is the mathematical *expectation* of earnings in that occupation for a unit of resources *with the character and aptitudes of this one* (thus allowing for (2) and (1)) ; that this expectation is to be reckoned by summing *the series of its probable earnings* at each stage in its career (thus allowing for (3)) ; and that it must be calculated on the assumption that resources within the industry in question are distributed between firms in the most profitable way (thus allowing for (4)).”

¹ For most purposes it is convenient, and for many it is necessary, to treat the various acts of “labour” or of “waiting” or what not performed by the same individual as separate units of resources. We must then say that the relevant “expectation of earnings” is the addition which the employment of the unit in one industry would make to its owner's expectation of income (summed through time), account being taken of its effect upon his facilities for supplying other units to this and other occupations, and upon their efficiency there. What follows should be read in the light of this warning.

Without entering into detail or attempting strict accuracy, some further elucidation of the last point may be offered.

§ 4. The earning capacity of the resources employed in an industry depends partly on the way in which they are distributed between the firms engaged there: *i.e.* on the scale of the business units in the industry. If ϵ_0 is the expected earning of any r^{th} unit of resources, or more accurately for a unit having the character and aptitudes of the r^{th} unit, when attached to the firm to which it is in fact attached; $\epsilon_1, \epsilon_2, \dots, \epsilon_q$ what its prospective earnings would be if it were attached to each of the q other firms in the industry respectively; $\epsilon_1, \epsilon_2, \dots, \epsilon_q$ the costs of transferring it to them (*i.e.* the earnings expectation of which would just suffice to compensate for the cost of movement); and p_1, p_2, \dots, p_q the strength of its owner's preferences for employment in its present firm as compared with each of the others (*i.e.* the earnings expectation of which would just suffice to overcome these preferences—which may, of course, be negative): then, equilibrium requires that ϵ_0 should be not less than

$$(\epsilon_1 - \epsilon_1 - p_1), (\epsilon_2 - \epsilon_2 - p_2) \dots (\epsilon_q - \epsilon_q - p_q);$$

i.e. every unit of resources must be so placed that its owner considers he would not gain by moving it to another firm.¹ The equilibrium position of the resources will, of course, depend on the initial distribution assumed as a starting-point; for this will affect transference costs (and perhaps preferences). Hence the distribution of resources reached in equilibrium is not the most advantageous absolutely but the most advantageous *relatively to the initial distribution* assumed as a starting-point. The notion of a single equilibrium position uniquely determined without

¹ It is commonly held that under conditions of simple competition the earnings of a unit of resources are equal to the value of its private net product (*i.e.* the addition which it makes to the productivity of the resources employed along with it in the same firm). This is true if we assume that there is perfect mobility of resources and no cost of transference between firms: that those who own or use resources know the terms of employment in every part of the market: that the owners of resources have no preference for one firm as against another: and that no unit of resources is specially adapted to employment in one firm rather than in another. Those assumptions are highly artificial, but they are convenient for some purposes and are commonly made. If they are made, our p 's and t 's disappear and our ϵ 's become equal to one another and to the value of our unit's expected private net product in the industry. We can then say that, in equilibrium, every unit of resources must be so placed as to make the value of its prospective private net product a maximum: and, if we further assume a perfect market in the product (so that every unit of product is sold at the same price), that must be so placed as to make its prospective *physical* private net product a maximum.

reference to a specified starting-point is quite baseless: there are numberless equilibrium positions, each corresponding to a particular starting-point.¹

Now the prospects offered by the various firms will be constantly fluctuating with changes in their luck, their age, the efficiency of their management and so on. Hence there will be a continual ebb and flow of resources from one firm to another: what equilibrium requires is simply that the distribution of resources should be such that this process of reshuffling cannot give rise to any general *increase* in earning capacity (measured in terms of net advantages), but merely *prevents its deterioration* by moving resources from points where prospects are worsening to those where they are improving. Although, that is to say, readjustments will be continually going on and resulting in the enlargement of some firms and the contraction of others, each new distribution of resources (and therefore of output) between businesses must leave the effectiveness of the general arrangement—of the “scheme,” so to speak, or “pattern” of distribution—unchanged: the division of output and resources between firms must always remain the most advantageous that is possible *with the degree of knowledge and intelligence prevailing among the persons engaged in the industry* (which is, of course, given and constant).

The clause which I have italicised is of some practical importance; for it will often happen that a concentration of resources which would be advantageous to the whole body of persons concerned if it were carried through by the common action of all the entrepreneurs in a trade (or a large proportion of them) cannot profitably be achieved by the piecemeal expansion of individual businesses or a gradual process of absorption, and is, in fact, rendered impossible by the too narrow attention of a few individuals to their own immediate self-interest. (A situation of this kind is said to exist in the British cotton-spinning and coal-mining industries at the present moment.) For this reason also equilibrium does not require that the scale of business should be the most profitable in an absolute sense. *It does, however, require that it should be the most profitable which is possible given the degree of intelligence, foresight and corporate spirit prevailing in the industry and the initial distribution assumed as a starting-point.*

¹ These considerations are, of course, much more important in connection with the distribution of resources between *industries* and *grades* (or processes). In practice, the past history of our world gives us our starting-point and determines the equilibrium position uniquely. But the equilibrium is still relative to the starting-point.

§ 5. The influences which determine the distribution of resources between *industries* can be analysed on similar lines. In equilibrium, every unit of resources must be so placed that its owner does not consider he would gain any advantage by moving it to another industry—the prospects offered by movement to other industries being calculated in the manner indicated above, so as to allow for costs of transference and the owners' preferences.¹

One advantage claimed for this line of approach is that it enables us to allow for any required degree of heterogeneity in the various units of resources which are customarily lumped together under a single label such as "labour," "waiting," "land" and so on. It would still be appropriate even if we assumed that every unit of "labour," "waiting" and the rest differed from every other in all the relevant characteristics (*i.e.* earning capacity in the various firms and industries, costs of movements and owner's preferences). Indeed the much more elaborate analysis on which this rough summary is based was undertaken largely on account of the infinite variety of productive resources which is encountered in practical life. To me, at any rate, the economic problem presented by the real world seems to be much more a question of sorting out and fitting each into its appropriate niche a vast number of heterogeneous individuals and activities than of regulating and directing into the proper channels large homogeneous streams of standardised productive agents: a jig-saw puzzle rather than a problem in hydrodynamics. And I am gratified to find that Professor Robbins has reached a somewhat similar conclusion.

Mr. Robertson, however, seems to think differently, for (following a hint of Marshall's) he wishes to "build up the supply schedule for a commodity by aggregating the supply schedules of the various

¹ In fact the rules governing the distribution of resources between firms and industries are simply particular applications of a more general principle:—in equilibrium every unit of resources must be so placed that its owner does not consider he would gain by moving it to another point in the industrial field. The industrial field has four principal dimensions—firm to firm, industry to industry, grade (or process) to grade (or process), and place to place. Every unit must be so placed that its owner does not consider that he would gain by moving it to another firm, industry, grade or place; or in any combination of these directions. This broad principle, together with the conditions of demand for the various commodities, the state of technical knowledge, the suitability of various units of resources for various uses, their owners' preferences and bargaining power, the costs of moving them and their initial distribution, determines the quantities in which the various commodities are produced and their values. If "we are going in for a bit of State interference with prices," we want to know which units will be attracted into and which expelled from the industry by an upward or downward price-movement; and the consequent effect on output.

factors of production"; and that can only be done if the "labour," "land" and so on required for a given output of the commodity can be expressed in terms of *quantity* alone and in a measure which is independent of value. Various attempts to devise such a measurement have been made, but none have succeeded.¹ Mr. Robertson does not say how he proposes to get round the difficulties. Nor is it clear that the "representative firm" will help him here or enable him "to speak of the labour-costs, interest-costs, etc. per unit of product for any given scale of output as having an unequivocal meaning." For, as Marshall observed, "Even in the same place and the same trade no two persons pursuing the same aims will adopt exactly the same routes. . . . For instance, of two manufacturers in the same trade, one will perhaps have a larger wages bill and the other heavier charges on account of machinery. . . . And in minor details the variations are numberless."² We can, of course (given enough information), ascertain the average wages-cost, interest-cost, etc. for the industry as a whole by dividing the total output into the total wages-bill, interest-charge and so on; and we may, if we like, call the result the wages-cost, interest-cost, etc. per unit of product "in a representative firm." But, since our object is merely to arrive at the costs for the industry as a whole, the introduction of the representative firm is then otiose. The costs of a representative firm are useless as a means of discovering the costs of the industry, if we can only find out what they are when we already know the costs of the industry.³

I turn now to the "more difficult matters" with which the second part of Mr. Robertson's article is concerned.

¹ Of course, it would be possible (given the information) to divide "labour," "land," etc. into grades such that all the members of each grade were similar in all relevant respects; and to treat each grade as a separate "factor" or "agent." But then you would have almost as many land-grades or land-factors as there are square yards of land: and almost as many labour-grades or labour-factors as there are man-hours of labour.

² *Principles of Economics*, IV. v. 3, p. 355.

³ This objection does not, of course, apply to Marshall's device of arriving at supply price by reference to the average cost in a representative firm as ascertained by adding all its items of outlay together and dividing by its output. For this average cost will be the same in all representative firms. It is only the proportions in which the factors are combined which will vary from one representative firm to another. (Marshall actually estimated the representative firm's cost per unit "at the margin" so as to exclude "the ground-rent of the factory," but the principle and result are the same as if he had taken the average cost including rent.)

II

§ 6. As a preliminary to discussing them, we must look rather more closely than is customary at the distinction between the "internal" and "external" economies of large-scale production.

Marshall (intentionally, no doubt) left his definition of these terms a little vague. But he seems to have been concerned principally with the distinction between (1) the advantages which a firm derives from the efficient organisation of *the resources which it employs directly* (e.g. the proper distribution of tasks among its employees, the use of specialised machinery in its own plants, and so on) and (2) the advantages which it derives from the organisation of *those outside resources, not in its own direct employment, whose services or products it uses* (whether through hire, purchase or what not)—usually in common with other firms in its industry (e.g. transport facilities, communications, trade journals, produce exchanges, subsidiary industries, the traditions and "atmosphere" of the locality, and so on). Evidently, an increase in the scale of the industry as a whole may increase both these kinds of advantage for the business engaged in it; and may therefore, in this sense give rise to *both* internal *and* external economies.¹ But the line of division thus drawn, important and fruitful though it is for many purposes, is not, I venture to think, the most significant and illuminating when we are seeking to unravel the relations between the size of an industry and the efficiency of the businesses which compose it—or, in other words, of the resources which it employs.

§ 7. For this purpose it is important above all to distinguish between (1) the improvements in organisation² which are made possible or profitable by an increase in the total output of the industry as a whole, and (2) the improvements in organisation which an individual firm (Mr. Robertson's Smith and Robinson) would obtain by increasing its own output while that of the industry as a whole remains unchanged.

¹ This is clearly implied in Marshall's treatment of the subject. For example, the representative firm is defined as having "normal access to the economies, external and internal, which belong to that [the existing] aggregate volume of production" (*op. cit.*, p. 317), and the "particular expenses curve" is drawn "on the assumption that the aggregate production is OH and that all the producers have access to the internal and external economies which belong to this scale of production" (p. 811). [The italics are mine.] It is therefore surprising that Mr. Robertson should regard the "hybrid" type of "external-internal" economies (i.e. internal economies due to an increase in aggregate output) as a novel discovery.

² I use this as a convenient shorthand phrase for anything which increases the efficiency (i.e. the productivity) of the resources employed; and with the proviso that there may be analogous *disimprovements*.

Let us consider (2) first. The enlargement of a business nearly always carries certain advantages with it (*e.g.* greater division of labour, more specialised machinery, and so on): on the other hand, it is usually accompanied by certain disadvantages (*e.g.* greater difficulty of supervision or of marketing, delivery at a greater distance from the place of production, and so on). A business reaches its most efficient size when the advantages to be derived from further expansion just balance its disadvantages.

Long-period equilibrium does not, of course, require that every—or indeed any—business should be at its most efficient size. As we have already seen, what it *does* require is that the *general scheme*, so to speak, on which output is distributed between firms should be the most profitable known to the persons engaged in the industry: that the advantages enjoyed by the owners of the resources in the industry cannot be increased by concentrating output on a smaller, or diffusing it over a larger, number of firms, or, more generally, by altering the number of businesses with outputs of various size. *The distribution of businesses between the various size-groups* must, that is to say, be the most profitable possible, having regard to the knowledge, intelligence and corporate spirit of the persons engaged in the industry and its aggregate volume of trade—though individual businesses may be moving all the time from one size-group to another.

So far as the practical issues of the moment are concerned, the most important type of change in the size-distribution of businesses is, of course, the concentration of output on a smaller number of firms (*i.e.* an increase in the higher, accompanied by a decrease in the lower, size-groups—a general shift up the scale); for the real or supposed advantages of this are the main motive-force behind the modern movement for “rationalisation.” But other types must be borne in mind: *e.g.* a shift away from the medium-sized businesses towards both extremes—an increase in the highest size-group accompanied by an increase in the lowest and a decrease in the middle ones (*cf.* Marshall’s exposition of the openings which a large business may afford to small subsidiary firms).

§ 8. Turning next to (1). An enlargement of an industry’s output (an increase in “the extent of the market”) usually opens up opportunities for improved organisation. In order to make the most of them, an individual business may be obliged to alter its internal arrangements and even to enlarge (or contract) its own scale of operations. And in consequence quite a different distribution of businesses between the size-groups may become

profitable. But, if we are moving from one position of long-period equilibrium to another, *any change in the organisation or scale of the firms composing the industry must have been rendered possible or profitable by the increase in the aggregate volume of business*; for if it had been profitable with the industry on the smaller scale, it would have taken place before.¹ It is vital to a proper understanding of the tendencies making for "increasing returns" that this point should be clearly brought out.

Mr. Robertson, it is true, objects to saying that the growth of the firms in an industry is the result of the growth of the industry. "One might as well argue," he declares, "that the growth of the individual bones of a baby are the result of the growth of the skeleton." To argue thus would indeed be nonsense. But it would not be nonsense to say that, the laws of physiology being what they are, the growth of the skeleton is *a necessary condition* for the growth of the individual bones: that you will not in practice find the femur assuming full adult proportions while the ribs, the tibia and the rest remain those of an infant or contract to make room for it. Similarly, it is not nonsense to say, as we are saying here, that, the laws of economics being what they are, the growth of the industry as a whole is *a necessary condition* for a growth in the scale of its constituent firms: that you will not get one without the other.² On the contrary, it is both true and highly important for a clear understanding of the problems Mr. Robertson is discussing.

§ 9. Do we not therefore need a terminology which distinguishes between—

(a) The effect which the expansion of *an industry as a whole* has upon the productive capacity of the resources employed in it, and

(b) Changes in the efficiency of an individual firm consequent upon an increase in its own output while that of the industry as a whole remains unchanged?

Nothing but confusion can come from using "the economies [or diseconomies] of large-scale production" to describe both these phenomena; and from using the same label *both* for the advantages

¹ Cf. § 4, above.

² The relation between the scale of the industry and the size of the firms is, of course, functional: neither can be said to be the cause of the other, they mutually determine each other. Marshall did not, as Mr. Robertson suggests, say merely that "the growth of an industry and the growth of its firms frequently proceed more or less *pari passu*." He categorically declared that "the size of such a [representative] firm . . . is governed, other things equal, by the general expansion of the industry" (*op. cit.*, pp. 459-60).

[or disadvantages] of concentrating a given volume of output on a smaller number of businesses *and* for those which ensue from an enlargement in the total volume of business.

It is tempting to call (a) "external" and (b) "internal" economies [or diseconomies] of large-scale production.¹ But this also leads to confusion on account of the associations already attached to those terms. The best names that I have been able to think of are "the economies [and diseconomies] of large-scale *industry*" for (a) and "the economies [and diseconomies] of *individual expansion*" for (b).

In equilibrium the economies of large-scale industry may, on balance, be positive: so may the economies of individual expansion in any particular firm—or indeed, as we shall see, in *every* particular firm. That is to say, an industry may be in equilibrium even though the efficiency of the resources it employs would on the whole be greater if, other things equal, its aggregate volume of output were larger; and even though it is true of every particular firm that the efficiency of the resources it employs would be greater, other things equal, if it increased its share in the existing volume of output.

Another label is wanted for those economies of large-scale production which *are* ruled out by equilibrium. For lack of a better word, I propose to call them the "economies of *concentration*." As we have seen, equilibrium implies that no redistribution of output between firms is both practicable and profitable with the existing degree of knowledge, intelligence and corporate spirit among the persons in control. The term "economies of concentration" is here used to denote changes in the efficiency of the resources employed in the industry consequent upon a redistribution of its present output between its constituent businesses which (1) involves an increase in the average size of

¹ I have myself sometimes succumbed to this temptation in the past. For example, in the note on "Varying Costs and Marginal Net Products," published in the JOURNAL for June 1923, "external economies" is used for what I am here calling "economies of large-scale industry." In the article to which Mr. Robertson refers, Mr. Sraffa seems to have used "internal economies" to denote what are here called [net] "economies of individual expansion." But, in the same article, he uses "external economies" in what is evidently Marshall's sense. For he argues *not* (as Prof. Pigou and Mr. Robertson both suppose him to) that "external economies" cannot be sufficient of themselves to cause increasing returns; but that *if* they are large enough to do this, they will appreciably affect the costs of other industries and therefore alter the demand schedule for the product of the expanding trade—since "external" economies are commonly shared by several industries. But it is only "external economies" *in Marshall's sense* which are so shared. The wording of the article itself and the misinterpretation put upon it by Professor Pigou and Mr. Robertson aptly illustrate the obscurities wrapped about the subject by the existing terminology.

the businesses (an upward shift in their size-distribution), and (2) is both practicable and profitable with the existing degree of knowledge, intelligence and public spirit among the people in control. In equilibrium, therefore, the economies of concentration must, by definition, be zero. Changes in the efficiency of the industry's resources consequent upon a redistribution of output which would be practicable and profitable if only the people in control had enough knowledge,¹ intelligence and corporate spirit may be called "economies of *rationalisation*."

§ 10. This system of classification is, I venture to think, of some considerable assistance in solving the difficulties discussed in the second part of Mr. Robertson's article.

Consider, first, the question, "How can the existence of internal economies be reconciled with competitive equilibrium?" or, in other words, "Why do not internal economies in the individual firms lead to a concentration of output into the hands of any business which gets a start of its rivals?" The internal economies here in question must obviously be internal economies of individual expansion, *i.e.* improvements in its internal organisation which a firm would obtain if it had a larger share in a *constant* aggregate output: since economies which can only be obtained if the aggregate output increases cannot set up any tendency towards a concentration of the existing output.

The answer which most readily occurs to the mind is that these "internal" economies of individual expansion are offset by equivalent diseconomies, so that, on balance, expansion of the individual businesses yields no *net* economy if the aggregate output does not increase; but that, if the aggregate output *does* increase, these diseconomies are absent or smaller so that, in that event, the expansion of individual firms *does* yield a net gain in efficiency.²

The obstacles which check the growth of a firm's share in a trade are familiar and their nature has already been indicated. The two most important types for our present purpose are the increases in the cost of *transport* and of *marketing* (competitive advertisement and so on) which a firm is liable to encounter as it advances further into its competitors' territory or markets: the first arising from the necessity of delivery at a greater distance from the producing plant, the second from the fact that, the further

¹ New technical discoveries are, of course, not here in question.

² Although, that is to say, certain credit items appear both among the economies of individual expansion and among the economies of large-scale industry, there are certain debit items among the former which do not appear (or are not so large) among the latter.

the invasion proceeds, the greater will be the buyer's preference to be overcome in order to detach an additional increment of custom. Singly or together, these diseconomies may well offset the economies of mass-production in the process of manufacture. The second type is likely to be especially prominent in the case of specialities, *i.e.* when the goods made by each firm are slightly different from those produced by the others—substitutes but not perfect substitutes (*e.g.* motor-cars).

Where such a situation exists, a firm's average or marginal cost might be lowered if it increased its own output and left that of its rivals intact (thus increasing the aggregate output): raised (or left constant), if it increased its output by invading the territory or market of its competitors (so that the aggregate output remained as before). For in the former case it would avoid the increased charge for freight and/or competitive advertisement, and the advantages of mass-production would have free play. Now enlargement of existing firms is often (though not always or necessarily) the most profitable way of increasing the output of an industry—and hence the method actually adopted. Thus, what Marshall and Mr. Robertson call "internal" economies may be sufficient to cause "increasing returns" or "diminishing supply price," although they are not sufficient to cause a single firm (or a small number of firms) to secure the whole output or even an increased share in it.¹ In other words, the economies of large-scale industry may be, on balance, positive although the economies of individual expansion and those of concentration are, on balance, zero or negative, simply because putting an additional unit of product on to the market encounters less formidable obstacles than capturing a competitor's trade.

Our first answer to Mr. Robertson's question is, therefore, to distinguish between an increase in output at the expense of your rivals, and one which leaves their trade undisturbed; and to point out that it is often more difficult, and hence more costly,

¹ The distinction here drawn between the cost of invading a rival's market and adding an increment to the aggregate output correspond to the distinction drawn by Professor Pigou between a firm's "marginal substitute cost" and its "marginal additive cost." Professor Pigou first introduced this distinction into his discussion of the subject in his "Analysis of Supply" (*Economic Journal*, June 1928, p. 242). Having stated it, however, he dismissed it from further consideration on the ground that "so long as the output of the industry as a whole is large relatively to the putput of any one firm, they [the two sorts of marginal cost] are not likely to differ very much." This is true on the assumption (which he was presumably making) that the market is perfect and transport costs negligible. It is only in this special case that the conclusion, "price is equal to marginal cost in the equilibrium firm," applies to marginal additive cost.

for a firm to invade its competitors' territory than to put an additional increment on to its own market. This simple reflection at once enables us to reconcile competitive equilibrium with "increasing returns" or "diminishing supply price" *arising from "internal" economies alone.*

The distinction on which it is based is not brought out by dividing the economies of "large-scale production" into those which are "internal" and those which are "external" (indeed, this conventional dichotomy seems rather to have obscured the issue by tempting even such high authorities as Professor Pigou to rely on the easy but, as I venture to think, quite secondary line of escape afforded by the existence of "external" economies). The classification here suggested draws immediate attention to it by insisting from the start that the process of securing particular businesses a larger share in the existing output is a different thing altogether from enlarging the output of the whole industry (whether by increasing the output of particular businesses or otherwise).

The point can, of course, be explained by reference to the "representative firm." We can say that such a firm could not lower its average expenses¹ of production by securing a larger share in the existing volume of business, since the improvements which it would obtain in its organisation would be offset by the difficulty of capturing its competitors' trade; but would lower them by adding a unit to the total output, since it would not then encounter this difficulty. But the introduction of the representative firm is not in any sense necessary or "essential." We can equally well say that the industry's average expenses of production would not be reduced by a further concentration of the existing volume of business in the hands of particular firms, since the economies they would obtain from operating on a larger scale are offset by the expenditure they would incur in capturing their competitors' trade; but that it would be reduced by an increase in the total volume of business, since they could then expand without incurring this expenditure.

In many cases (not all), a price-cut affords a means of capturing trade alternative to expenditure on competitive advertisement. Where this is so, the firm may be able to reduce its average cost by expanding its output if it is prepared to cut prices sufficiently.

¹ Or similarly of "marginal expenses."

² I am, of course, assuming for the sake of simplicity that a fight for trade is the most profitable way of enlarging the business unit in the particular industry under review—given the disposition and intelligence (or unintelligence) of the people engaged in it.

Assuming the goods produced by the various firms to be precisely similar, the economies of individual expansion are then positive. But if the price-cut required is so great as to render expansion by this means unprofitable, the economies of concentration may still be zero and the industry in equilibrium. Yet expansion of particular businesses might be the most profitable way of securing an increase in the aggregate output; so that, in the absence of other obstacles, the larger output could be obtained at a lower cost per unit. Once more we get increasing returns due to internal economies alone and compatible with the existence in equilibrium of a large number of competing firms. And once more we can explain the situation without introducing the representative firm: by saying that although the economies of individual expansion are positive in every firm, the imperfection of the market renders concentration of output unprofitable by reason of the price-cuts necessary to bring it about.

Where the articles produced by the various firms are precisely similar and the obstacles which make concentration unprofitable arise (as do price-cuts and competitive advertisement, but not transport charges) from the imperfection of the market, the economies of rationalisation are likely to be positive: it is likely, in other words, to be true that a concentration of output would be profitable and would increase the efficiency of the industry if only the entrepreneurs had enough sense or corporate spirit to stop cutting each other's throats and to pool their resources. Hence equilibrium of this kind is usually precarious. On the static assumption that the entrepreneurs' disposition remains constant, it is stable enough, for there is nothing to upset it. But even the most obstinate business man may learn wisdom in time; and after a situation of this kind has continued long enough the people in control are likely to see the folly of their ways. With the change in their disposition, the structure of the industry changes (the economies of rationalisation having now become economies of concentration) and a new equilibrium is reached with output concentrated into larger business units. The first equilibrium position carried within itself the embryo of another destined to supersede it. In a *dynamic* study of industry it must be regarded as unstable. Nevertheless, it is sufficient to explain how in practice an industry might remain in equilibrium for a very long time in spite of the great advantages offered by mass-production.

§ 11. I foresee two objections to this first answer. Mr. Sraffa will say, perhaps, that the equilibrium reached under these

conditions is not competitive but monopolistic: that, once the market is broken up by transport charges or buyers' preferences or what not, we are presented no longer with a wide competitive industry but with a number of narrow little monopolies. Mr. Robertson may complain that, except in the last two paragraphs where I call in the theory of monopoly, I am evading his real difficulty—which only arises when the economies of individual expansion *predominate* over its diseconomies, so that an individual firm would, on balance, *reduce* its average expenses of production if it could secure a larger share in the output.

Whether a given situation is to be called competitive or monopolistic is, of course, a question of words. True, there may be a real issue behind it—the question, namely, whether in the given situation value approximates to cost of production or departs from it widely. But we are not concerned with that problem here. We have simply to inquire whether, and if so why, substantial economies of mass-production are consistent with the survival of a large number of competing firms. I shall therefore merely observe that if competition implies not only a perfect market but also a complete absence of transport charges, it never exists in practice. We are no longer being asked to explain what happens in the real world but to solve a purely abstract and hypothetical problem.

The hypothesis implied (*viz.* a perfect market and no transport costs) provides, however, a convenient line of approach to Mr. Robertson's central problem. It is accordingly accepted in the two following sections.

§ 12. The solution of this problem turns, as Marshall saw, on the element of *time*.

It may be true—to take an extreme case—of every firm in the industry that its average cost would be lower if, *other things being equal*, its share in the aggregate output were larger. But expansion takes time, and further time is required before the newly-installed equipment can yield all its fruit. During this interval other things are not likely to remain equal. A firm's efficiency depends on many other factors besides the scale of its operations. By the time Smith and Robinson have enlarged their output so as to get an advantage over their rivals in the matter of "internal economies," or before their new equipment is used up, their luck may have deserted them, and/or they may have lost their leadership in skill—with the result that on balance the advantage in efficiency now rests with Doc and Roe. The internal economies open to Smith and Robinson may still be so

great that, other things equal, they would lower their cost per unit by enlarging their output further, but the speed at which they can take advantage of this is limited by the speed at which they can expand and reap the fruits of expansion, and it may be so far outstripped by the rate at which their luck and ability are deteriorating that expansion now offers them no net gain¹: their progress is then at an end and they are likely soon to lose ground. Meanwhile, Doe and Roe are forging ahead, and will continue to do so until for them in turn the growing advantages of large-scale operations are offset by declining ability or a downward trend of fortune. The lead will then pass to others—perhaps to Smith and Robinson again, perhaps to Brown and Jones.

In such ways as these, the continual fluctuations in luck, ability and other factors affecting cost prevent the advantages of mass-production from enabling a single firm to absorb the whole output. If a firm could enlarge its output to any required size (and consume the additional equipment) *instantaneously*, then indeed the predominance of internal economies would, on our present hypothesis, be incompatible with competitive equilibrium; but since it cannot,² the two conditions can be reconciled.

¹ The condition for this may be indicated as follows:—Let c be the additional cost which the firm would incur in expanding its output by an amount Δx , over an interval of time Δt , if its ability, luck and so on remained constant—or, as we may say, the firm's "present marginal cost." Let $c + \Delta c$ be the cost which this expansion would involve when allowance is made for the probable change in the firm's circumstances over that interval of time. The difference between these costs, Δc , may be called the increase in marginal cost during the expansion-interval. Let p be the price of the product. Then expansion is profitable, indifferent or unprofitable according as $p \cdot \Delta x \gtrless c + \Delta c$, i.e. according as $p \cdot \Delta x - c \gtrless \Delta c$. Thus, expansion ceases to be profitable when the increase in marginal cost during the expansion-interval becomes equal to the difference between the value of an increment of product and the present marginal cost. It will be understood that Δx includes the whole yield of the additional equipment installed and Δt the time necessary to secure it.

² It is impossible to pass from one point to another on a curve of the Pigou-Robertson type drawn to show what the firm's average (or marginal) cost would be at various outputs if its ability, luck and so on remained as at present. We can only pass from one point to another on a series of such curves drawn to represent the circumstances of the firm at successive moments of time. Presumably, therefore, Professor Pigou's curves are not drawn on this plan, but represent, in some sense, the successive phases in the firm's career. He has not, however, thought it worth while to discuss this point, and his treatment of the whole problem is rendered rather puzzling by his speaking throughout as if a firm's costs were a function of two variables only (its own output and the industry's), whereas in reality they are a function of three variables (its own output, the industry's and time). There is a similar obscurity in Mr. Robertson's diagrams. The phenomena referred to in the text might be described diagrammatically as follows. If we draw a cost-and-output curve for any firm (whether representative

One way of putting the point is to say that the additional cost which a representative firm would incur by expanding its output would be less than the price of the product if its ability, luck and so on remained constant; but yet would not be less if we allow for the probable change in its circumstances over the time-interval required for expansion; so that its expansion would not in fact be profitable.

I am not sure whether this is the solution offered by Mr. Robertson,¹ since he does not explain *why* Smith and Robinson, although a representative firm in all other respects, "have not the quality of being able to expand output indefinitely at a lowered cost per unit," nor develop at all fully his novel and intriguing distinction between *a* representative firm and *the*

or otherwise) to show what its average or marginal cost would be at various outputs supposing its other circumstances to be and to remain what they are at a specified moment in its career, then this curve will slope downwards towards the right. But if we drew a series of such curves representing the circumstances of successive moments, cut them out and stood them side by side as Marshall proposed to do with another series of curves in a different connection (*op. cit.* pp. 809-10), then a vertical section through them parallel to the plane of the *y* axes would at certain points slope upward in the direction indicating the movement of time. It is this upward slope which, when steep enough, checks the expansion of the firm at certain stages in its career, and may even cause its contraction, in spite of the downward slope of its cost and output curves in the direction $o \rightarrow x$. The curves are, of course, drawn on the assumption that the aggregate output of the industry stands at a specified figure. In the circumstances (now becoming rare) in which it is legitimate to speak of a representative firm with a life like that of "the trees of the forest," equilibrium may be said to require (1) that the total prospective costs of a representative new entrant into the industry, summed over its whole career and discounted for distance in time, should be equal to its total prospective receipts similarly summed and discounted, and (2) that the addition to its total prospective costs required to enlarge its prospective output a little should be equal to the consequent addition to its total prospective receipts. If we allow for the discount of future receipts by a deduction from prospective physical output, we can say that the price of the product must be equal to (1) the representative new entrant's average cost per unit over its whole career, and (2) the ratio of the increment in its prospective costs required to secure a small increment in its prospective output to that increment of output. In this sense, equilibrium requires price to be equal both to the average and to the marginal cost in a representative firm. These principles enable us to construct a supply schedule for the aggregate output of the industry, if we know the relation between the prospective costs and prospective output of a representative new entrant for every aggregate output of the industry. The analysis (which runs on lines somewhat similar to Prof. Pigou's more recent contribution to the subject) can be expressed in simple mathematical formulæ and illustrated by diagrams; but it is not worth pursuing far, since it applies only to a special case now uncommon.

¹ I am, however, pretty confident that it is what Marshall intended. For he makes it quite clear that in equilibrium the value of a unit of product must be equal to the "marginal cost" in a representative firm (*op. cit.*, V. xii. 3, p. 460). And this will only fit into the rest of his analysis if this "marginal cost" is calculated so as to allow for the change in circumstances over the expansion-interval.

representative firm. I am unable to attach any precise interpretation to his picturesque analogy of the drop and the wave, or to his suggestion that we should regard the "average cost curve of the Representative Firm" as nothing more than "a small-scale replica of the supply-curve of the industry as a whole."¹ His account of how an industry which is out of equilibrium reaches it again is not to the point; for the whole difficulty is to explain what happens *in* equilibrium. In practice, no doubt, a growing industry seldom, if ever, reaches equilibrium: the demand is continually increasing and output is always chasing after it and never catching it up. The firms grow partly because they have not reached the size appropriate to the existing volume of production, partly because the volume of production is increasing; and it is impossible to say in any particular case how much of their growth is due to one cause and how much to the other. But the causes must be distinguished analytically if we are not to confuse "a record of historical events" with "a true supply-curve" which represents "a series of conditional sentences."

But the representative firm need not be introduced at all. The point can be put quite simply as follows. Since it is true of every firm in the industry that it must at any given moment have a lower cost of production if its share in the output were larger, concentration of output and resources on a smaller number of firms would increase the efficiency and lower the costs of the firms on which they were concentrated; but it could only be maintained by withholding output and resources from other firms which, through lapse of time or a change in luck, had become more (or no less) efficient than these in spite of their smaller size: the advantage of continually shifting resources and output to the points where circumstances are for the moment most favourable would, in part at least, be lost. Hence the concentration would not be profitable² nor favourable to the industry's efficiency. The resources would be employed in business units of a more efficient *size* but less efficient in other ways: the gain under one head would be offset by the loss under the other. Thus, though the economics of individual expansion are, on balance, positive in

¹ What, for instance, does he measure along the horizontal axis? The output of the industry or the output of the Firm when the output of the industry is of various sizes? If the latter, does he assume that the Firm's output is a constant fraction of the industry's (i.e. that the growth of the Firm is exactly proportionate to the growth of the industry)? If he does not assume this, how is its cost-curve constructed so as to reproduce the slope of the supply-curve?

² Since the firms from which resources were withheld, being no less efficient than those which retained them, could offer them as good, or better, terms.

every firm, the economies of concentration are zero and those of rationalisation zero or negative.

As before, the distinction between "internal" and "external" economies is of no assistance. But the distinction between the economies of "concentration" and "rationalisation" and those of "individual expansion" is; for it at once directs attention to the fact that a concentration of output into fewer hands involves other things besides the enlargement of the business units.

§ 13. But have we not proved too much? If an enlargement of the business unit cannot, for the reasons stated, increase efficiency, how can it give rise to "increasing returns"? We cannot now fall back, as we did before, on the difference between the cost of invading your competitors' market and of increasing your own output while leaving theirs undisturbed; for, on our present hypothesis, no considerable difference is likely to exist. Are we then driven to say that increasing returns, if they occur at all, must be due to Marshall's "external" economies?

No. For an enlargement in the total volume of trade may increase the *speed* at which an individual business can grow.¹ The enlargement of output is due, let us say, to an unexpected increase in demand. The first effect will be that some firms which would not have expanded further now find it profitable to do so, while others which would have contracted now maintain their output. For the moment, costs may not be lowered and may even be increased; since this additional product, though produced in larger units, is produced in less favourable circumstances (*e.g.* under older managers). But the larger volume of business *increases the chance of obtaining trade for new, young or fortunate businesses*, and therefore increases the rate at which they can grow. Hence, as time goes on, a firm at any given stage in its career, and therefore at any given phase in efficiency, will tend to have a larger output than before and accordingly a lower average cost (since, *ex hypothesi*, managing ability being given, its cost per unit is lower the larger its output). In this way the output as a whole comes in time to be produced at a smaller cost per unit than the old output was. The reduction could not have been secured by concentrating the old output, because with a smaller total volume of business firms could not have grown so fast. Yet it is entirely due to the predominance of "internal"

¹ I am indebted to Mr. E. A. G. Robinson for drawing my attention to the importance of the rate of growth in this connection. But he is not responsible for my attempt to show how this may be increased by an increase in the volume of trade nor for the reasoning I have based on it.

economies, *i.e.* to the fact that, other things being equal, a firm's average cost will be lower the greater its output.

Here again the classical division of economies into internal and external does not help, while the distinction between those which arise from concentrating output and those which arise from enlarging it does. And here again, though the advantages accruing from the increase in aggregate output can be explained by saying that it leads to an increase in the size of the representative firm which would not have been profitable without it, they can equally well be explained by saying that the increase in the volume of trade makes possible a grouping of resources into larger business units (an upward shift in the size-distribution of businesses) without the disadvantages that would accompany a concentration of the existing output.

§ 14. There are, of course, many other ways in which "the economies of individual expansion" may differ from "the economies of concentration" and both from "the economies of large-scale industry." I have had to select, not the most important, but those which are most directly relevant to Mr. Robertson's problems. Fuller discussion must await another occasion. Meanwhile, I should like, in conclusion, to give two reasons why, in my view, the device of the "representative firm" and the distinction between "external" and "internal" economies are of less general utility than Mr. Robertson seems to think.

First, the "representative firm," and more particularly the analogy with the "trees of the forest," are only applicable to a particular set of conditions—which is becoming less and less common every day. "As with the growth of trees," says Marshall, "so *was* it with the growth of businesses as a general rule *before the great recent development of vast joint-stock companies*, which often stagnate, but do not readily die. *Now that rule is far from universal*, but it still holds in many industries and trades."¹ The italics are mine, but the past tense and the warning limitations are Marshall's. Mr. Robertson ignores them. Yet surely they are even more significant now than when the *Principles* was written. Indeed I should be inclined to say that the "rule" had by now become an exception. In most industries we are faced, not with a population of transitory firms, each being born, rising to maturity and passing on through old age to death, but with a number of more or less permanent business units or employment-nuclei, each with its own individuality, each expanding and con-

¹ *Op. cit.*, IV. xiii. 1, p. 316.

tracting from time to time as its luck waxes or wanes, its managers grow slack or make way for new blood, fashion ebbs and flows, but continuing in existence more or less indefinitely¹; and we must conceive of equilibrium in the industry as a whole as arising, if it arises at all, from a dovetailing of their various phases of efficiency, due to the fact that their fluctuations are in part independent and in part compensatory, the contraction of one leading to the expansion of another. If we must have an analogy, it should be, not with the trees of the forest, but with a cluster of variable stars, each with its own individuality, magnitude, spectrum and so on, and each with its own characteristic series of light-fluctuations (mostly irregular, but some showing a sort of Cepheid-like periodicity); the brightness of the whole being kept more or less constant by the compensating action of the individual fluctuations. In such a situation it is impossible to write the characteristic life-story of a "typical" or "representative" firm.

Secondly, how does Mr. Robertson propose to use the "representative" firm or "internal" and "external" economies to explain increasing returns when they arise from the kind of reorganisation described by Professor Allyn Young? Take, for example, his own illustration. When, with the growth of a textile industry, the old spinning-cum-weaving-cum-dyeing units are superseded by separate spinning mills, weaving sheds and dyeing plants each under separate management, what has become of the representative firm? Suppose that (measured by the quantity of resources they employ) the spinning firms are the same size as the old mixed units, the weaving firms smaller, the dyeing firms larger: has the representative firm increased in size or diminished or remained constant? And are the economies they all get from the use of specialised machinery and the division of labour in their own works "internal" or "external"? or "internal" in the case of the dyers and "external" for the spinners and weavers? or "external-internal" for all three? or "internal-external"? Need one—*can* one—say more than that the growth of the industry leads to (*i.e.* the sense that, the laws of economics being what they are, it *necessarily implies*) a redistri-

¹ As Professor Macgregor has recently shown, many joint-stock companies die young. My point is that there is a nucleus of Methuselahs in most trades and that in many it is a dominant element. The firms may, of course, from time to time enter into agreements and combinations, but even then they retain many of their individual characteristics as centres of employment and production.

bution of its resources in such a way that it becomes sectionalised, the business-units being in some sections larger than the old unspecialised concerns, in others smaller, in others the same size ; and that the net effect of the change is to increase substantially the efficiency of the resources employed—in other words, that the economies of large-scale industry are here, on balance, positive and of considerable magnitude ?

G. F. SHOVE

REVIEWS

The Coal Industry of the Eighteenth Century. By T. S. ASHTON and J. SYKES. (Manchester University Press. Pp. 268. 14s.)

THIS is an important book on an important subject. Coal is so obviously the material basis of modern economic civilisation that it is curious that this work should be almost the first attempt by competent historians to deal with its history. It is possible that the precocity of English economic development in the modern era is partly to be explained by the fact that the shortage of timber caused the wooden age—which was as truly a distinctive economic phase as the iron age that succeeded it—to decline in England earlier than on the Continent. No one, at any rate, can read the economic history of the sixteenth and seventeenth centuries without realising that this country was faced by a fuel problem, which it attempted to meet in the orthodox manner, partly by a timber conservation policy, partly by developing the use of an alternative combustible. A modest expansion of the coal industry took place earlier than is commonly realised—even in the early seventeenth century a writer could speak of the coalfields of the north-east coast as the English Indies. It was closely connected with the development of other manufactures, with the application of scientific knowledge to the practical problems of industry, and with the progress of invention; while the fact that everywhere in England, with the possible exception of the Forest of Dean, it grew up outside the traditional social *cadres* gave its structure and organisation from the start a character of their own. Textiles, though important, have hitherto occupied too large a space in economic histories. To see the forces that were making the future, the student should turn, at any rate after the middle of the seventeenth century, to the coal industry.

Mr. Ashton and Mr. Sykes are not concerned with origins. They begin their story in the early eighteenth century, when the industry is firmly established and rapidly expanding, and end it before the sensational increase in production in the second quarter of the nineteenth. Of the fourteen chapters in their book,

Chapters I-IV are concerned mainly with the technique of production, Chapters V-X with the economic and social conditions of the mine-workers, Chapter XI with mineral rights, and Chapters XII to XIV with the commercial side of the industry, including the supply of coal to the greatest market, London, and with combinations in the coal trade. Their use of printed sources, pamphlets, the publications of the Hist. MSS. Commission, and the Calendars of State Papers shows the wealth of easily accessible material which is as yet unexhausted by the economic historian, who is still sometimes too much disposed to believe that to neglect it for manuscript sources is a sign of grace. But economic history cannot be written without work on manuscript sources at some point or another, and Mr. Ashton and Mr. Sykes have made a very valuable contribution in hunting out one particular class of material which till recently has been too much neglected, namely, the records of firms. Professor Unwin made good use of it in his work on *Samuel Oldknow and the Arkwrights*, as did Mr. Ashton himself in his book on *Iron and Steel in the Industrial Revolution*. The present volume exploits it, however, on a larger scale than any other known to me, except possibly the unending series of German works on the Fuggers. This is a new and important departure, which must have involved much hard labour, both physical and mental, to carry through, and on this ground alone Mr. Ashton and Mr. Sykes would deserve our gratitude.

The value of materials lies in the use to which they are put. What, it may be asked, do the results come to? Partly, perhaps, owing to the nature of the sources on which they have mainly relied, but still more, no doubt, owing to the difficulty—it may be the impossibility—of obtaining any reliable statistical evidence of a comprehensive kind, the book is intensive rather than extensive. It does not attempt, that is to say, to give a synthetic picture of the coal industry at the beginning and end of the eighteenth century. It does not offer any new estimate of the total output of coal, or give an account of the relative importance of different fields, or discuss in any detail (except in the case of London) the coal trade of different ports. To say this is not a criticism, for the materials may not allow of the satisfactory treatment of these subjects; and, in any case, though adequate quantitative data would be valuable if we could get them, an instructive picture of the organisation and methods of the industry, of the lives of the mine-workers, and of the main developments in technique can be given even in their absence.

Such a picture is drawn with much insight and skill by Mr. Ashton and Mr. Sykes. Mining technique is a bewildering subject, but it has a more than technical importance, and in the opening chapters they describe the physiology, so to say, of coal-mining in the eighteenth century in a manner which is intelligible to the layman. They indicate the influence on the industry of the English land system, with its great estates : it may be said with some confidence, indeed, that, had England been, like France, a country of peasant proprietors, the rights of the surface-owner over the subsoil would not have been what they are to-day. Their accounts of the Scottish collier-serf, and of the bonding system in the north of England, are much the best that have yet been given. Their chapter on collective contract, with its hint of an early democratic system of groups working under a leader chosen by themselves, and of its subsequent degeneration into the odious butty system against which the miners have fought for a century, and which is still with us in Nottinghamshire to-day, raises intriguing questions. These chapters, and those which follow them, on the effect of changes in the cost of food on the mining population (called by the suggestive, but perhaps unduly limited, title of Corn Riots), on Wages and Conditions of Work, and on the Effects of Industrial Progress on Labour, are extremely valuable. Their conclusion is of a pessimism which some will find surprising. "Only a very determined meliorist, blinded by a preconceived theory, could assert with confidence that it was better to be a collier's child in the opening years of Victoria than in those of George II."

The chapter on royalties and wayleaves bring out the interesting point that the proportion of the value of the output taken by the mineral-owner was in some cases—it is probably true to say in most cases—much higher than it is to-day. But the turning-point in the development of English mineral law had come earlier, and, while France overhauled her system twice in the eighteenth century, in England arrangements which were absurd in themselves, and which descended from an age when no one, except a few prospectors, guessed that coal had a great economic future, survived unaltered. The account given of the organisation of the different layers of distributors through whose hands the coal passed on the way to the London consumer, and of the combinations to rig the market, is illuminating. The latter subject—the limitation of the Vend—is almost the only aspect of the eighteenth-century coal trade which had been dealt with at length before the appearance of the present work. Its authors are, no

doubt, quite right in saying that the limitation of the Vend has a much longer history than is suggested by Professor Levy. They show that selling agreements existed early in the eighteenth century, and, as a matter of fact, provoked protests in the closing years of the sixteenth. Altogether, Mr. Ashton and Mr. Sykes are to be congratulated on having produced a remarkable and instructive book, based on thorough and honest research, and written (a statement not always true, alas! of works of research) in a style that makes it a pleasure to read.

R. H. TAWNEY

Foreign Investments (Lectures on the Harris Foundation, 1928).

By GUSTAV CASSEL, Professor of Economics, Stockholm; THEODOR E. GREGORY, Professor of Banking and Currency, London School of Economics; ROBERT E. KUCZYNSKI, Council Member, Institute of Economics, Washington; and HENRY KITTREDGE NORTON, publicist and author. (The University of Chicago Press, Chicago. 1929. Pp. ix + 232. 15s. net.)

PROFESSOR CASSEL opens his three lectures with an exposition of his well-known Purchasing Power Parity principle. In the trade between two countries, A and B, "equilibrium in the international balance of trade," he says, "can evidently only be reached at a rate of exchange which will enable A to sell as much to B as B to A. This definition may serve as the exact definition of the rate of exchange that represents the Purchasing Power Parity." This definition, which is several times repeated, and the implications of the loose phrase "as much as" tempt one to an examination of Professor Cassel's basic thesis for which there is no space here and for which this is not the occasion. Sufficient for the moment is it to suggest that his principle is much too simple to explain the course of exchange rates over the past five years. No authoritative examination of international finance over that period has yet been made, and in many respects the material for it is not yet available. One may express the hope that among the results of Mr. Snowden's new Commission on Finance will be the shedding of much light on many dark corners in the financial world. To-day, in the attempt to explain, there is far too much risk that one may only mislead.

Professor Cassel holds that "an export of capital is always counterbalanced by an export of goods to the same value," including in goods services, and that, therefore, "the equilibrium of the rate of exchange will not be affected." Further, he con-

cludes that "a central bank can always buy all gold currency that is offered to it, provided the price is kept a little below par, without running the risk of the currency being inflated by a superabundant import of foreign capital," for the rise in internal prices would bring about "a consequent rise in the exchange value of foreign gold currencies" previously undervalued. His second lecture is devoted to disproving the alleged drawbacks of an export of capital, and to showing that a diminution of such exports has been the cause of the depressed condition of the great exporting industries of industrial countries, particularly Great Britain. In his third lecture he examines the effects of the Dawes Plan on Germany, especially in view of the tariff policy of the United States, and usefully points out to Chicago that "the United States must once and for all make a definite choice between their interest in protecting home industries and their interest in alleviating their federal budget."

Professor Gregory also contributes three lectures, in the course of which he gives a criticism of the estimates of the "balance of trade" made annually by the British Board of Trade, a criticism which is needlessly unsympathetic to the difficulties which the Department has always frankly set forth. He gives no assistance in the removal of those difficulties, and he credits the Board in one place with an assumption which it certainly does not make in so simple a form; referring to the fact that the "balance" is one of revenue items only, he says that "it is assumed that if the sum-total of the credit items exceeds the visible adverse balance of trade, the difference measures the net balance of all the capital items." Passing away from this minor matter Professor Gregory discusses the three main views which are currently entertained as to the value of foreign investment to the economic life of England. The first is the orthodox Free Trade or City view, that investment can be left to the investor, since "the free play of market forces will adjust the rate of interest to be paid by the different classes of borrowers in such a way that the price of each loan reflects both the degree of risk involved and the need of the borrower." The second, or "Imperialist-Protectionist" or Conservative view, is that exports of capital should be deliberately made to stimulate exports of goods, especially by governmental action such as the Trade Facilities Acts, and that capital loans to the Empire should be particularly favoured. The third view, to which Professor Gregory ascribes the name "Economic Nationalism," is advocated by Mr. J. M. Keynes and his colleagues in the Liberal Report on "Britain's Economic Future." This group

hold that "a correct balance" between investment at home and investment overseas should be maintained with the controlling help of a Board of National Investment, so that "the development and extension of transport facilities, public utilities, industries, housing, and agricultural equipment at home should be a first charge on the national savings, and . . . only the surplus, after the satisfaction of all reasonable domestic requirements under these headings, should be made available to public bodies abroad." The implications of this policy are acutely analysed, and attention may be directed to the third lecture, on "the British capital market during the war." Professor Gregory does not seem to come to any very clear decision on the matter—perhaps it was not his business to do so. But he quotes the estimate of the Colwyn Committee that in view of the declining rate of increase of the population, "provision of capital according to old standards, and sufficient to maintain the existing rate of production and the *status quo* of the standard of living, can continue to be found without the least difficulty." From this he concludes that "even if, then, it is held that a larger *per capita* investment at home than was normal in the past is desirable in the future, it is improbable that a slight shift in interest rates would not succeed in diverting funds to home use, even without any administrative interference with the processes of investment other than some extension of the volume of domestic issues having the status of trustee securities."

Mr. Kuczynski's contribution to this volume is a useful review of the process of American lending to Germany and of the effects of redemption of these loans on American economic life. America can sell goods so long as she lends, he points out. "But America cannot go on for ever lending to Germany. Some day there must be a settlement. Some day America must be prepared to accept redemption with its consequences."

Mr. Norton discusses "backward countries as a field for investment" from the American standpoint. "It seems to me," he says, "quite evident that the investment of capital in backward countries is not only a legitimate, but a desirable, proceeding. It seems desirable even in view of the unpleasant duties that sometimes go with it," such as "protecting" American interests in such places. "The problem of backward countries as a field for investment is the problem of finding at one and the same time adequate restraint for them and adequate self-restraint for ourselves."

The Economics of Farm Relief. By EDWIN R. A. SELIGMAN.
(New York : Columbia University Press. 1929. Pp. 303.)

THE conclusions of various Parliamentary commissions which have studied the agricultural situation in England have been subjected to careful analysis by many experts in the field of agricultural economics. The great number of relief measures which have so far been proposed testify convincingly to the complexity of the problem. Whether or not the present symptoms of depression in American agriculture indicate that the ailment which has played havoc with the English farmer has now spread to the United States remains as yet unanswered. In any event the point has been reached in this country, where an inquiry into the farmer's economic well-being is demanded. Expediency compels our political leaders to assume a serious mien whenever the plight of the farmer is discussed ; they have, furthermore, been induced to commit themselves deeply in regard to farm relief. The recent appointment of a Farm Board, with extensive powers and with substantial financial resources at its disposal, confirms this situation very definitely.

In the *Economics of Farm Relief* Professor Seligman undertakes to diagnose the difficulties and grievances of the American farmer. "Instead of population pressing upon food supply," the author writes in his preliminary remarks, "food supply is pressing upon population" (p. 24). The implications of this statement are far-reaching. Disparity between demand and supply has threatened the farmer before. The disposal of surplus farm products necessitates either the development of a foreign market or an increase in domestic consumption—perhaps both. The formulation of a set of rules which will accomplish the desired results is well-nigh impossible. The situation is complicated by circumstances beyond the control of man—weather conditions, the ravages of unconquered insect pests, etc., and, to a lesser extent, changes in standards of consumption. The long-time and the emergency problems, as Seligman calls them, must necessarily be met by different agencies ; any programme of farm relief must include both.

Seligman's proposed roads to agricultural prosperity traverse many shaded lanes where visibility is seriously obstructed and surmount a not inconsiderable number of grades which necessitate on the part of the reader a highly-gearred imagination. But in the main his judgments and his advice are sound, as might be expected from one who has devoted most of his life to the study and practical application of economic theories. He concludes his lengthy

argument with the remark: "The farmer's problem is in large part a problem of readjustment. The acuteness of the situation will disappear, as has been the case in previous periods of depression. But the pains of the transition may be alleviated by remedial action. Moreover, there remains a substantial substratum of more permanent conditions. There are at work fundamental causes of both a world and a domestic character which render the position of the farmer relatively more difficult and which tend to menace his continued equality with industry. Government can indeed provide no panacea, nor can it reverse the operation of factors that depend upon forces beyond its control. But in the more modest task of removing obstacles, of affording opportunities, of equalising conditions, of taking emergency action and of rendering aid where it is imperatively needed, a Government Farm Board can do its share in helping to preserve the old-time American farmer and in leading him on to ever newer levels of prosperity and contentment."

The "modest task" which Seligman speaks of is actually a stupendous one. Experience indicates that economic adjustments are extremely difficult to accomplish by legislative action. If the present programme of farm relief in the United States is to meet with any measure of success, Government effort will have to be supplemented by unstinted co-operation on the part of the farmer.

FELIX FLUGEL

University of California.

Transport Co-ordination. By K. G. FENELON, Ph.D. (King. 1929. Pp. 142. 6s.)

THIS book bears witness to the increase of attention which economists are now giving to the branch of their subject dealing with transport problems. The pioneering work of the late Sir William Acworth was limited mainly to questions appertaining to railway transport; to-day the field is wider, and, rightly, transport is increasingly regarded as a complete whole. The inter-relationship between the various species of the genus forms the most pressing problem in this branch of economic study, and Dr. Fenelon's book, which is described in a sub-title as "A Study of Present-day Transport Problems," is published at a time when the focus of attention is directed upon many of the subjects he discusses, such as the regulation and co-ordination of London traffic.

A paper read at the Glasgow meeting of the British Association

provided the seed from which this present work grew. That the seed was carefully tended and skilfully directed is abundantly clear, while the author was fortunate in that important events have followed one another closely in the field of which he treats, such as the successful application for road powers by the railways, and the consequences of those added powers. Dr. Fenelon has divided his study into five main parts, in the first of which he contrasts the economic characteristics of the various types of transport, and attempts to outline their respective economic spheres. Evolution of the internal combustion engine for road and air transport still continues, and this section of the book is almost entirely free from the error of attempting to draw hard-and-fast margins between the spheres of function of the various transport methods. The author wisely stresses the effect of an increased degree of retail trade, and its relation to transport service, and points out the development of production in country districts through the coming of the motor vehicle, though equally he draws attention to the comparative lack of success of the electric vehicle for city haulage. The picture drawn of canals in Great Britain is not a particularly optimistic one, except, perhaps, for the revived Grand Union, which may be regarded as a "new venture of great interest." On the other hand, the development of civil aviation has been very striking, though primarily in the international sphere, and amongst its advantages the author might well have included its power of rendering tariff walls totally ineffective except at termini.

The succeeding section of the book deals with road and rail competition, and discusses without bias this problem which faces all industrialised and some other countries. The demise of light railways, and the unremunerative character of railway branch lines attracts attention, as does the fundamental weakness of the railway with its heavy burden of fixed costs and nationally regulated conditions of work. There is considerable truth in the statement that "Much of the work . . . by the Rates Tribunal has indeed been wasted labour and gone for nothing," owing to road competition and the depression in trade, though in assuming that a reduction in gross revenue, as, for instance, in coal traffic, necessarily means proportionate reductions in net revenue, the author would seem to be on less firm ground. Similarly, while train mileage as a measure of work done may increase, the cost per unit may fall so as to more than offset the increase. While pointing out that the main attraction of the long-distance motor coach is cheapness, the author reminds one that the average

receipt per passenger mile by rail is less than one penny, which is the figure at which buses can operate successfully. That competition inevitably leads to co-ordination and comparative stability is the basis of the section dealing with "The Economic Basis of Co-ordination," while the practical steps which have been taken in road and rail co-ordination in Great Britain and abroad follow in logical sequence. A short chapter then deals with the relationship of air and water transport, inland and coastwise, to the other forms of transport, while the book concludes with a most useful description of the "Co-ordination of Passenger Transport Facilities in Great Cities," covering Paris, Berlin, Vienna and London.

Provided with a complete index, Dr. Fenelon's book should prove very useful to students of transport economics, and valuable as a book of reference in regard to recent traffic trends and legislation.

C. E. R. SHERRINGTON

Emigration from the British Isles (with special reference to the Development of the Overseas Dominions). By W. A. CARROTHERS, D.F.C., Ph.D. (P. S. King & Son, Ltd. 15s.)

HERE at last is a study of the problem of Emigration from the British Isles which throws light both on past difficulties and on present-day emigration, and at the same time treats of the development of the Overseas Dominions.

The British migration which began after the Napoleonic wars, and which carried on through the nineteenth and twentieth centuries, is, as Dr. Carrothers points out, the greatest in the history of the world. Not only is it important in point of numbers, but it laid the basis of what is now the British Commonwealth of Nations, relieved the Old Land of population for which no work could be found, gave an impulse to steamship construction, and was the origin of the gold discoveries in the British Dominions which changed the whole economy of the world.

The book covers the thought and practice of the nineteenth century on the subject of population—the pessimism of Malthusianism, succeeded by the optimism resulting from railway development and industrial expansion—and shows how opinion reflected conditions and influenced policy. There are three chapters dealing with Edward Gibbon Wakefield's ideas and schemes and their effects on Australian and New Zealand settlement.

Special attention is given to the emigration from Ireland and

Scotland caused largely by distress—particularly by the Irish famine.

We come to see that assisted emigration is no new method. It was applied from time to time in the past century, but had lapsed in the years immediately before the Great War, when the prevailing motive was hope of advancement rather than distress or fear of distress, and yet in 1912 the high-water mark of emigration from the British Isles was reached. A decrease of 15 per cent. came in 1913, and a still greater decrease in the early months of 1914. Allied with the change in motive of the emigration of this century there was a remarkable change in the destination. In the decade 1891–1900 only 28 per cent. of the emigrants from the British Isles went to places within the Empire, but from 1901 to 1912 the number remaining within the Empire increased to 63 per cent. of the total, and in 1913 it was 78 per cent.

There was a further reason for the change in motive of the emigration in the increasing tendency for periods of prosperity and depression to coincide in the great industrial and commercial countries such as Great Britain, United States and Germany. This naturally gave rise to an emigration resulting not so much from actual depression as from the pull of greater opportunity elsewhere, and modern transportation facilities provided greater freedom of movement in the corresponding periods of prosperity in England and abroad. Because of this there has grown up the mistaken theory (originally propounded by Sir Robert Giffen in 1885) that periods of prosperity are periods of greatest emigration. This theory appears in reports of the Overseas Settlement Committee from time to time. The error arises from the attempt to deduce general principles regarding emigration from purely statistical data, leaving out psychological factors. No two emigration cycles are alike, but an analysis of nineteenth-century emigration statistics reveals a tendency for the “movement to take place about the beginning of the second year of the period of depression, and this increase has carried over into the succeeding period of prosperity.”

Turning to post-war emigration, difficulties have arisen from mistaken conceptions of what is possible in view of the almost revolutionary social and economic changes both at home and abroad;—in the British Isles, cessation of Irish emigration, the protection of the worker, the increasing paternalism of the State, the increased cost of passages, and the psychological reaction against emigration on the part of a people who felt the Old Land ought to provide homes and bread: and in the Dominions,

agricultural depression, completion of railway construction, increasing use of machinery in all forms of primary production, growth of labour unions with their jealously guarded privileges, and the return to the Dominions of their troops after the war.

It was perhaps difficult to foresee these changes in 1921, when the migration policy was endorsed by the Conference of Prime Ministers and later embodied in the Empire Settlement Act of 1922. Based on the idea of a redistribution of the white population of the Empire through Government-aided migration, there seemed to be confidence that the pre-war movement would recommence.

In 1923 the Imperial Economic Conference stated: "The new policy aims at remedying the shortage of white population overseas and diminishing in some degree the present excessive inequality of distribution of the white population of the Empire, while at the same time ensuring that a larger proportion of the normal stream of migrants from the more densely populated countries of the Empire shall be retained under the British flag."

In 1926, despite the clear appearance of the changes indicated, considerable optimism still prevailed at the Imperial Conference, but the resolution with regard to the redistribution of population pointed out that "it would be impracticable, owing to financial, economic and political considerations, to promote mass movements of population"; yet the Conference was "satisfied that by continuous adherence to the present policy it should be possible steadily to increase the flow of population to those parts of the British Commonwealth where settlers are most needed for development and general security, and where they will find the greatest opportunities."

Dr. Carrothers rightly points out that this recognises the difficulty of the policy and indeed to some extent its failure, yet continues to saddle the Overseas Settlement Committee with the impossible task of developing the movement.

"There are indications," he writes, "that the nineteenth-century emigration movement from the British Isles, which commenced at the close of the Napoleonic wars, is drawing to an end. That the movement will cease completely is unlikely. There would still be the adventurous spirits, the dissatisfied and the distressed, who from year to year would seek their fortunes elsewhere, part of whom would be drawn to the Dominions. But the practical cessation of emigration from the British Isles would create serious problems for the Dominions, particularly Australia, assuming that the economic development of the Dominions is

such as to require immigrants." In this concluding paragraph the author really sets out the problem.

The question arises whether the economic depression affecting the heavier industries and the post-war unemployment are not only far from being epidemic and chronic, but simply episodic in the economic history of the country. The question is really whether fewer people, if there were fewer people, would be better off. The answer to that can hardly be in terms of the number of unemployed, for if the unemployed were drawn off, unemployment might still remain. Nor can it be answered by considering income per head, which in the case of England has increased enormously, and indeed income has grown with the increase of population in the Dominions and in the United States. The economic doctrine that capital is fixed, and the more that share it the less there is to share, takes no account of the phenomenon (of which modern France is a striking example) of an immigrant able-bodied labour supply constantly inducing and making it profitable for the entrepreneur to find productive work. There are signs that agriculture in the United States is suffering from a lack of adequate farm labour supply resulting from quota restrictions.

The definition of " optimum " population and the desirability of emigration or immigration, as the case may be, is primarily the economic problem. Dr. Carrothers has kept this in mind, but has treated the subject along historical lines. There is now needed, however, a statistical and analytical survey of migration taking into account the factors of the discoveries of gold and the beginnings of steamship and railway development. Whether mineral or water-power development will have the same pull in the matter of migration as gold, for example, in the middle of the nineteenth century, in the march of settlers westward in America towards California and in Canada towards the Northwest, and in Australia and New Zealand, remains to be seen. Has Great Britain still got in her millions the type that will undertake the heavy tasks of the pioneer? This book gives glimpses of the hardships which Irish settlers had in Canada, and the stories are confirmed by Senator Andrew Haydon in his book, *Pioneer Sketches in the District of Bathurst*, in his very interesting chapter on " The Ballyghibblins." These settlers had had such hard conditions in Ireland that they were pleased with the reception given them in Canada.

Through such has Canada achieved Dominion. Unfortunately the last generation in England had their share of hardship in

France, and this must have made the appeal of pioneer life somewhat less attractive.

Dr. Carrothers in his Preface expresses the hope that the book may be of assistance in removing the idea that the migration problem is "simply that of recruiting and transporting migrants." The book does more. It demonstrates that the problem is so little understood because it demands a thorough and rare knowledge of social, economic and psychological factors both at home and abroad.

R. ENGLAND

Lancashire Betrayed. By ERNEST E. CANNEY. (Manchester: John Heywood, Ltd. Pp. 127. 3s. 6d.)

DURING the last few years Mr. Canney has written many articles and delivered many addresses on the post-war situation in the cotton industry. This book is composed of a selection of them, and in its style and in the repetition it contains bears marks of its origin. Its somewhat startling title is justified by Mr. Canney on the ground that the cotton industry had been subject to a series of betrayals: (a) by the militarism that brought about the war, (b) by the country denying the tacit guarantees of a sound and considerate national policy, (c) by the majority of those engaged in the industry having turned aside from the difficult path of sound principle to explore the easy and highly attractive route to perdition, (d) by those contributing to the literature of the cotton problem who have found an easy way out of its perplexities by thrusting the blame entirely on to the depressed spinners.

Generally Mr. Canney contends that the situation in the cotton industry is due to causes external to the industry, and insists that his statement of these causes and of the remedies for the situation is applicable to all the depressed basic industries: coal, iron and steel, shipbuilding, shipping, and agriculture. These industries, he declares, have served as the dumping ground for the post-war burdens of the nation at large, and the key question which those engaged in the industries ought to ask, both for their future guidance and to clear up the present situation, is, "Are we to understand that investors of capital and labour in the staple export industries will in future be called upon to take up the burden of all wars, whilst other sections of the community will be allowed to escape practically scot free?" Mr. Canney is so impressed with the need for this question to be asked and answered that, at the outset of the address in which

it appears, he reminded his audience of the method adopted by the seconds in the old prize-ring of stimulating the activity of their semi-conscious champions by biting their ears, and stated that, on that occasion, he intended, if he could get at them, "to take a few bites at the deaf ears that Lancashire usually turns when recommendations outside the normal routine of the industry are discussed."

In the same address (the theme of which is present in all the others) Mr. Canney dealt with the effects of deflation on the finances of a sample of the cotton mills reconstructed during the boom of 1919-20, and contended that, at the time of the address, "expressing everything in goods values . . . loanholders have had in repayments already 63·6 per cent. of the original loans; yet the outstanding loans remain at 32·6 per cent. more than the original loans. Meanwhile they have enjoyed interest nominally at 6 per cent., but in real value at 10·25 per cent." Other burdens which the cotton industry and other staple industries have to bear are those consequent upon "the excessive remuneration in national and local services, the price rings and other trade agreements, monopoly combines, safeguarding and protecting of minor industries, subsidies for new industries—one or other of which applies to all sheltered industries, professions and public services, as well as to the retailers. By these adventitious aids large sections of the community . . . have been enabled to evade the war burden and to thrust their share upon the staple industries." At the close of the address Mr. Canney formulated his recommendations, of which two may be mentioned: first, that the cotton industry should become politically conscious and see that it has adequate representation in Parliament; second, that a special committee should be set up to estimate the financial assistance required to repair the damage of deflation and to formulate a claim on the nation.

If one may summarise the whole of Mr. Canney's articles and addresses in a few words, it can be done by saying that he points out that certain industries and trades have been hardly hit by the war-caused economic dislocation, and by measures which have been adopted since the war, while other industries and trades have become more prosperous. He insists that readjustment is required, and that the power of the State should be invoked to attain it.

In conclusion, mention should be made of the four cartoons by which the book is enlivened. One cartoon is of particular interest, for, among the "Olympian oracles" depicted, there is an

economic theorist who in face and figure bears a striking resemblance to one well known (by name at any rate) to all the readers of this JOURNAL. If Mr. Canney has himself produced these cartoons (and there is nothing to show that he has not), this notice of his book may close with an expression of the opinion that, whatever happens to the cotton industry, there will still be scope for similar expressions of his ability.

G. W. DANIELS

Taxation in the Modern State. By ALZADA COMSTOCK. (Longmans' Economic Series. Pp. 236.)

THIS book is a comparative study of the various forms of taxation in certain modern states, attention being chiefly paid to the United States, Great Britain, Germany, France and Italy. Dr. Comstock is concerned principally with post-war developments, which, he contends, have not received adequate recognition in recent works on public finance. The chief changes have been "an increased use of direct taxes, an unprecedented development of progression, and the introduction and continued use of sales taxes."

Modern international debt payments are regarded as relatively unimportant, whether viewed from the standpoint of the debtor or of the creditor country. But they are treated with reference to the proportion which they bear to the budget receipts and expenditures of the different countries, and no consideration is paid to the transfer problem.

There is an interesting description of the sales taxes which have been adopted in various European countries since the war. These taxes have not apparently led to the vertical combination which it was anticipated they would produce; nor do they seem to have aroused any great opposition on the part of the consumer. Of course their effects were invariably masked during the first years after the war by currency depreciation.

One would be glad to have a fuller discussion of the reasons for the comparative importance or unimportance of certain taxes in modern financial systems: for the absence, for example, of sales taxes in the systems of the United States and of Great Britain. Anglo-Saxon "fiscal tradition" and "fiscal theory" do not provide an adequate explanation of this fact or of the greater relative importance of the income tax in the British and American systems. A considerable influence must be ascribed to the differences in the level of national incomes and to the varying degrees of industrialisation.

The part played by capital levy schemes in different countries is not satisfactorily distinguished. Clearly there was a sharp distinction between the proposal to pay off a large portion of a war debt by a levy and the imposition of a levy, payable by instalments over twenty or thirty years, with a view to obtaining an additional source of revenue.

Some errors appear in the description of English financial conditions. The Englishman, it is said, could show "a burden of local rates equivalent to national taxation." Differentiation in the income tax is supposed to be secured by the application to earned income of a scale of rates "which are throughout lower than the corresponding rates applicable to unearned income."

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The Co-operative Movement in Russia during the War. "Consumers' Co-operation," by EUGENE M. KAYDEN, Prof. of Economics, the University of the South; "Credit and Agricultural Co-operation," by ALEXIS N. ANTSEFEROV, formerly Prof. of Economics and Statistics, Kharkov University, Russia. (Yale Univ. Press, New Haven, Conn. 1929. Pp. xvi + 420. 18s.)

PROF. KAYDEN'S essay on Consumers' Co-operation deals with a subject which, for the English reader, has a distinctly urban connotation. Not so in Russia, where at least 80 per cent. of Consumers' Societies belonged to rural areas and had a peasant membership, and where, in the villages, co-operative stores could be considered to some extent as part of the system of agricultural co-operation. Indeed, on the one hand, they very often fulfilled the functions of purchasing agencies for their members, while, on the other, the very fact that they reduced the prices of necessities, swollen to exorbitant figures, especially in the remoter districts, by the village shop-keepers, who represented, only too often, a glorified version of common usurers, permitted the peasant's slender working capital to go farther, thus exercising a beneficial influence on his farming. Prof. Kayden reviews the development of various forms of consumers' co-operation in Russia since its earliest tentative beginnings in the 'sixties, to its expansion in the years preceding the war and its short-lived luxuriant efflorescence during the war and the earlier stages of the Revolution. The author musters a vast array of statistics dealing with various aspects of the movement, the details of its organisation and

finance, the development of combination of primary societies into federations, and, in a separate chapter, with consumers' co-operation in Siberia. Throughout the whole essay, one feels not only the work of the student, but also the loving touch of the enthusiast of his subject. It is to be regretted, however, that, either because he was somewhat carried away by the contemplation of the rapid expansion of the movement after 1917, or, which would appear more likely, because practically the whole of the materials referred to in the foot-notes belongs to the revolutionary period and deals with what have actually been post-war developments, Prof. Kayden permitted his account of consumers' co-operation during the war to be dwarfed by that of the enormous, though unhealthy, expansion of the later years.

Prof. Antsiferov's study is the work of a distinguished Russian economist, who had also taken an active interest in the development of credit co-operation in Russia. His essay, carefully balanced and written with much knowledge of the organisation of credit co-operation in Russia and abroad, will prove exceedingly useful to the serious student of the co-operative movement in the Russian countryside. His discussion of the characteristics and peculiarities of credit co-operation in Russia is very instructive, and reveals with complete impartiality both the vigour and the inherent shortcomings of a movement whose evolution before and during the war pointed to great potentialities. He weighs conscientiously the pros and cons of Government financing and inspection of credit associations, and discusses the paradox—more apparent than real—of the excess of free balances in a country notoriously poor in capital and credit facilities—a sure sign of the co-operative credit system not yet having reached maturity, and its resources not yet having acquired the necessary degree of fluidity. This, indeed, was only a matter of time, and would, under normal conditions, have been done away with partly by the development of credit unions of higher order, on a regional or even national scale, partly through the closer fitting of the co-operative into the general credit system of the country, towards which the establishment, in 1912, of the Moscow Narodny Bank marked the first advance.

Thus, taken by themselves, the two studies are very valuable contributions to the history of co-operation in Russia. And yet, on closing the book, one cannot help feeling in it a singular lack of internal cohesion. It somehow fails to convey an adequate idea of the place of co-operation in the economic system of pre-

revolutionary Russia and of its organic connection with other aspects of the country's social and economic development. Only against the general background of Russia's economic development since the 'sixties, when the first abortive attempts had been made to implant co-operative institutions in a country-side still living under conditions of isolated semi-natural economy, can the evolution of co-operation in Russia be seen in proper perspective. The first co-operative associations, almost without exception, had rapidly withered away, and it was not until the close of the nineteenth century that the growing commercialisation of peasant farming, which accompanied the industrial expansion in Russia, provided a more favourable environment for the growth of rural co-operation. Survivals of the old regime of natural economy, such as the rural commune and open-field tenure, began to be felt as irksome hindrances to individual progress, while closer intercourse with the market made the co-operative organisation of small producers imperative. Hence the rapid progress, in the decade immediately preceding the war, of the peasant enclosure movements inaugurated by the agrarian legislation of Stolypin on the one hand, and of co-operation in its various forms on the other. The war brought about the progressive disorganisation of the markets, whose development had hitherto been responsible for the growth of co-operation. The expansion of the co-operative movement during the war had been due not to the economic progress of the country and the growing commercialisation of peasant farming, but to the process of economic dissolution and the consequent dearth of necessities, which the people sought at least partially to mitigate by joining or starting co-operative organisations. At the height of its apparent glory, indeed, the co-operative movement in Russia had been smitten by internal rot. This, in a brief outline, was the story of Russian co-operation as it is seen in projection on the general economic background of pre-revolutionary Russia: a story which explains much that appears as strange or peculiar in the organisation and growth of Russian co-operation, and which, if it had been told in a General Introduction, would have secured far greater cohesion in the volume.

GEORGE PAVLOVSKY

The Remaking of Village India. By F. L. BRAYNE. (London : H. Milford. Pp. 262. 5s.)

Socrates in an Indian Village. By F. L. BRAYNE. (London : H. Milford. Pp. 130. 7s. 6d.)

BOTH these books by the same author deal with the subject of welfare work in Indian villages, and the methods to this end that the writer suggests and has actually put in operation in a particular district in the Punjab. Though primarily intended for Indian readers, they are of general interest in presenting a vivid picture of the conditions of rural life in India and of the complicated social and economic problems to be encountered and overcome before any material improvement can be effected. Underlying these problems, some of which are necessarily peculiar to the locality, are the wider issues affecting progress generally in the country, the degraded position of the women, the shortcomings of the present system of education and the absence of any spirit of social service.

The title of the first of these books, comprehensive as it is, hardly conveys an adequate idea of the extensive programme of reforms contemplated, which touch almost every phase of rural life. They imply practically its reconstruction on modern lines. The first steps must obviously concern the improvement of the mediæval system of agriculture to ease the struggle for existence, and the observance of elementary principles of hygiene, the neglect of which leave the peasant a prey to disease. The evils of present practices are brought out in a clear and forcible manner in the accompanying volume.

The next and equally important step is to bring about a change in the peasant's outlook on life and to implant in his mind the idea of bettering his immediate surroundings. Unless there is some ambition to achieve a higher standard of living, the money gained by more scientific methods of farming will be poured out in wasteful expenditure on jewellery, marriage ceremonies and litigation. The lesson the social reformer has to teach him is to devote his greater earnings to the improvement of his farm and his home, and to safeguarding his own and his family's health.

These innovations in many cases involve a break with time-honoured practices and customs prescribed by caste. Certain operations, which constitute an essential part of modern agriculture, hitherto have been relegated to the menial castes and are held in disrepute by the higher castes. The caste system can hardly be held responsible for other obstacles to progress, such as the degrading tasks assigned to women, infant marriage and a

fatalistic attitude towards disease: these are survivals from another age and, but for the intense conservatism of the people, might be expected to disappear with the conditions to which they owe their origin. Education has not affected the villager's reluctance to move with the times; partly because the teaching given itself is at fault, and partly because the educated boy simply flies from the impossible conditions of his home to seek clerical employment in the towns. There are other Government Departments organised for the welfare of the rural population, but, for various reasons, the chief of which must be admitted to be the corruption of the subordinate staff, they have not succeeded in winning popular confidence.

In the absence of any class of voluntary workers willing to devote themselves to this form of social service, Mr. Brayne was compelled to enroll and educate his own staff. He began by organising a body of village guides trained for propaganda work and competent to give practical advice in carrying out the new ideas. He also succeeded in enlisting the enthusiastic support of a body of boy guides, who proved ready learners and, untroubled by prejudice and tradition, laughingly set examples their fathers felt obliged to follow.

Those acquainted with the psychology of the Indian peasant and his suspicion of sinister motives behind any suggestion of change in his way of life might well feel dubious of this attack on his most cherished beliefs and deep-rooted prejudices. It is therefore pleasant to read, "things undreamed of before, things supposed to be opposed to every custom and sentiment, have come to pass easily and naturally, all owing to continuous and intensive propaganda." Though the methods adopted seem well calculated to achieve the results desired, much of the success is probably due to the personality of the reformer and his ability to win the confidence of an uneducated peasantry.

The books are a fine record of an earnest endeavour to improve the conditions of rural life in India, to instil in the minds of the villagers themselves a desire for progress and to direct it into the right channels, and to inspire the more educated members of the community with the spirit of self-sacrifice and social service.

H. R. C. HAILEY

Primitive Economics of the New Zealand Maori. By RAYMOND FIRTH. (London: George Routledge. 1929. 25s.)

DR. FIRTH'S study of the economic life of the Maori as it was before contact with the whites modified, not to say destroyed, it is so masterly a piece of work that as an anthropologist I should

like to reproduce here *in extenso* that summary of its contents which I certainly need to make for my own use. For the purposes of the economist, however, it would hardly be helpful to enter into details, unless indeed he has an unusual taste for comparative studies and has learnt in the course of them to regard our own economic system from the outside as well as from within. By so doing he would possibly lose confidence in what the late Professor Hobhouse stoutly termed the "orthogenic" character of the line of evolution followed by Western civilisation. The Maori version of the good life may indeed be doomed; for even the largest of the Polynesian islands is far too small to act as an area of characterisation able to produce a competing type of culture of the necessary toughness. But Asia is perhaps on a long view the evolutionary centre of the world rather than Europe, and certainly rather than America; wherefore who knows whether the alleged straightness of our course be not such as one day to carry us straight off the map? It might be worth considering, therefore, whether a mode of the economic life which in a very general way is more like that of the Maori than our own has any chance of prevailing in the years to come. Put in a nutshell the question is whether the economic man whom we have been brought up, if not to admire, at least to identify with the average specimen of humanity has come to stay, or contrariwise is capable of a psychological transformation that would make him less of a materialist and yet more than ever of a man.

Now the savage—though this much-abused expression fails utterly to do justice to the princely Maori—has little or nothing of the economic man in his composition. Dr. Malinowski has proved this up to the hilt in the case of his Trobrianders, who flaunt the fact in our faces by indulging in voyages apparently conceived as an everlasting round of magico-religious compliments—a marine pilgrimage pursued not for profit but for mutual edification. In comparison with these unworldly Melanesians of the tropics the Maori in their cool and lightly-stocked surroundings had reason to work harder. Moreover, they did so up to a point that, thanks to their moderate requirements, left them a comfortable leisure for festal proceedings; in which war of a very gentlemanly kind may fairly be included. Their social system, though sufficiently hierarchical to place chiefs definitely above commoners, and men above women, nevertheless involved a fundamental collectivism that gave little scope for the private accumulation, or at any rate the private enjoyment, of wealth. The obligation that kept high and low, male and female, to their

respective tasks was essentially a sacred one, a religious belief that the spiritual welfare of all and sundry was bound up with a rigid observance, positive and negative, of what custom bid them do and avoid. Perhaps Comte's vision of a socialised industry resting on a theocratic sanction is the nearest thing that a Western imagination can contrive to what the Maori all-unreflectingly had discovered to be a method that works. It worked at any rate well enough to turn out a very fine type of man and woman, as Mr. Firth is ready to testify; his whole treatment, so rich in psychological insight as well as in sociological grasp of the outward facts, proving that he possesses the sympathy which alone can carry the anthropologist to the heart of his subject. This short notice must suffice to tempt the student of political economy away from his blue-books, so that he may contemplate the lotus-eater, not merely in order to master the statistics of the lotus-crop and suggest intensive methods of exploitation, but chiefly that he may perceive how the economic life at its best is but a minor function of the moral order.

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NOTES AND MEMORANDA

UNEMPLOYMENT RELIEF IN GERMANY

IN the course of a visit to Berlin in May 1929 the writer made a brief inquiry into the measures adopted in Germany to deal with post-war unemployment. The information so obtained was too slight to warrant anything in the nature of a critical survey, and the following statement is intended to be no more than a summary of the principal features of recent German policy.

Unemployment has been extensive in Germany at various intervals since the war, often exceeding the million mark and sometimes rising to over two millions. But, as in Great Britain, no really reliable census was possible until national machinery was set up to register and pay benefit to the unemployed on a uniform basis throughout the country. This did not happen in Germany before the autumn of 1927, when the first truly national unemployment insurance scheme was launched. Since that date the figures have varied from 1,154,000 in July 1928 to 3,229,000 in February 1929. Fluctuations between the summer and winter figures are far wider than in Great Britain, a fact which plays an important part in schemes of relief.

For nine years after the Armistice, German ideas of relieving the able-bodied unemployed were influenced by two abstract principles: firstly, that monetary relief should only be given on proof of need, and secondly, that it should be conditional on the performance of work. The practical abandonment of these two doctrines in Great Britain was looked upon as imprudent, but, in the event, Germany has been compelled to come round to something very like the British attitude. The means test was always invidious and, under a federal system, led to wide variations in the methods of assessing needs and benefits. Moreover, such a test was hard to reconcile with the contributory method which was adopted in 1923. The second principle broke down because it was never possible to provide relief works for more than a small minority of the applicants, and that only at great cost. The numbers so employed in recent years have varied between 127,000 in July 1927 and 40,000 in December 1928. In April

1929 about 66,000, or 4·5 per cent. of all persons in receipt of benefit, were on relief work. Owing to the seasonal nature of most of the work, the numbers always fall away in winter, when unemployment is at its worst.

Another outstanding feature of German experience is that between 1923 and 1927 the State (Reich) endeavoured to transfer the whole burden of out-of-work pay to a contributory fund built up mainly by employers and workers and supplemented by the provincial governments to the extent of a fraction varying from one-fifth to one-ninth. The Reich itself was to render no financial aid except in emergencies.

From 1923 onwards the trend of opinion veered round in favour of a national insurance scheme on the British model. Benefit at uniform rates could then be claimed as a right by all insured persons, subject to statutory conditions as to contributions, etc. The difficulty was, however, to devise a scheme in which all the rival interests could be persuaded to co-operate. On the one hand there were the strong traditions of local autonomy and the plain necessity of keeping the provincial governments and local authorities in touch with the machinery, and, on the other, there was the united demand of employers and workers for industrial self-management under a national system. In the end, after several years of discussion, the industrial interests were able, to a large degree, to prevail, though local government representation was not ignored.

Organisation of the New Service.—Under the Employment Exchange and Unemployment Insurance Act of July 1927, a special service was created which was national in character without being an ordinary Government Department. A National Institute or Commission (Reichsanstalt) was set up as a public body with executive powers and answerable to the Minister of Labour only on matters of law and principle. To avoid, so far as might be, the creation of a bureaucratic machine seems to have been one of the dominant motives. The new Reichsanstalt consisted of—

(a) The National Administrative Council, with an Executive Committee and a full-time President.

(b) The thirteen Divisional Councils (covering eighteen Provinces) with full-time Presidents appointed by the President of the Reich.

(c) The 361 Employment Offices with Managing Committees and Chairman appointed by the Central Authorities.

Every Council (National, Divisional and Local) was composed of representatives of employers, workers and public bodies in equal numbers. In addition, at the Ministry of Labour, a small department of Civil servants was set up to enable the Minister to supervise the work of the Reichsanstalt and to deal with matters of legal interpretation, legislation, etc.

Scope of Unemployment Insurance.—About 17 million workers are covered by the scheme as compared with 21 million persons covered by the compulsory Health Insurance Scheme introduced by Bismarck over forty years ago. The exceptions from Unemployment Insurance are very like those in the British Scheme, except that about one million of the less regular agricultural workers are brought into insurance. The majority of farm-workers are, however, excepted in so far as they are engaged on half-yearly or yearly contracts. Theoretically, such a policy of selecting from agriculture the bad risks and omitting the good, is open to question, but similar anomalies are allowed to persist in the British scheme. Perhaps no insurance legislation can afford to be quite logical. The income limit for compulsory insurance for salaried workers is as high as £420 a year. Voluntary insurance is permitted in certain cases.

Contributions.—The whole cost of insurance, Employment Exchanges, including vocational guidance and training, is left entirely to employers and workers, thus corresponding with the arrangement under which the executive control over the Employment Exchanges and Unemployment Insurance is entrusted to a semi-independent Commission or Institute. The National Exchequer contributes nothing except by way of loan when the Fund is overdrawn. But, as will be seen later, the Reich has been compelled to shoulder part of the burden in other ways.

The contributions of employers and workers are collected by the Health Insurance Institutes (some 8000 in number and mostly on a territorial basis), and are transmitted by them to the Divisional Employment Office for the area in which their headquarters are situated. (There are exceptions to this rule.) The contribution is regarded as consisting of two parts, a national share and a divisional share, but is collected in one amount, namely, 3 per cent. of the wages of every insured person. For the higher-paid clerks, etc. the percentage is calculated on a fixed maximum of £3 10s. a week. The employer is entitled to deduct half the amount from the wages paid to the employee and is legally responsible for transmitting the joint contribution to the Health Insurance Institute for the area.

The amount of the individual unemployment insurance contributions may be indicated by the case of a worker earning 55*s.* per week, whose total unemployment insurance contributions, including the employer's share, would amount to 1*s.* 7½*d.* per week. It may be added that compulsory Health Insurance contributions, which vary slightly between different areas, may amount to as much as a further 6 per cent. of wages, making a total of 4*s.* 11½*d.* for both insurances in the case mentioned (compared with a total of 2*s.* 9*d.* for similar insurances in Great Britain).

The Reichsanstalt audits the accounts of the Divisional and Local Offices, and checks the income due from contributions, but the District Health Insurance Institutes are responsible for the ordinary inspection of employers and workers, with a view to securing compliance with the provision both of Health and of Unemployment Insurance within their own areas. Since, however, a certain number of workers, *e.g.* coal-miners, are insured on a craft or other basis in special societies and are not in the territorial grouping, the ordinary inspection, in their case, is likely to be rather perfunctory.

Benefit.—Three kinds of benefit existed in 1928–29, but only two of these have a permanent place in the scheme. Ordinary insurance benefit is payable for 26 weeks, subject to proof of genuine unemployment, to insured persons who have 26 weeks' contributions to their credit within 12 months. In calculating the retrospective period of 12 months no account is taken of weeks of unemployment or sickness, subject to a maximum of three years.

Benefit is paid in accordance with the wage class of the claimant. There are eleven wage classes, mounting by stages of about 6*s.* at a time. The highest class (No. XI) corresponds to a unit wage of 63*s.*, and the lowest to a unit wage of 8*s.* a week. In the highest class, the weekly benefit for a single man is 22*s.*; in the lowest class, 6*s.* Family allowances are also paid at the rate of 5 per cent. of the unit wage for each dependent, subject to a certain maximum. Workers who suffer a reduction of weekly wages through short time may receive benefit, but the short-time benefit and the remuneration together must not exceed five-sixths of the full remuneration.

Health Insurance and Old Age Pension contributions are paid out of the Unemployment Insurance Fund during the receipt of standard benefit. (This has proved to be a heavy burden.) For new claims there is a normal waiting period of seven days, but this

is waived in cases of short-time workers, persons who have had less than six week's work since their last spell of unemployment, persons who have been incapacitated for at least one week, and persons with four or more dependents. On the other hand, the waiting period has recently been increased to fourteen days for young persons under twenty-one without dependents.

Persons in receipt of benefit must register at least three times a week at the local Employment Exchange.

The second kind of benefit is Emergency Benefit. It is a non-contributory benefit, provided to the extent of four-fifths by the National Exchequer and one-fifth by the local authorities. It was intended to be applied only in times of persistently heavy unemployment as a secondary provision for those unemployed persons who either—

- (a) had exhausted their 26 weeks of insurance benefit, or
- (b) could not show 26 weeks' contributions, but had been in insurable employment for at least 13 weeks in the qualifying period.

Emergency Benefit is only paid on proof of need, not as a right. Every case is considered by the Managing Committee of the Employment Exchange. The duration of emergency benefit was originally (in 1927) limited to a period of 26 weeks, but was subsequently extended first to 39 weeks and then to 52 weeks. In fact, all limits of duration were removed in February 1929 for the period ending June 29th, 1929, but not all occupations were so covered.

The conditions of benefit and family allowances are the same as those applied to standard benefit, with the important exception that the rate of emergency benefit cannot exceed the rate of standard benefit payable to the eighth wage class. From the seventh wage class upwards the rates are scaled down to those paid in the sixth, seventh and eighth classes.

Since March 1928, emergency benefit has been drawn by a percentage varying between 6 per cent. and 20 per cent. of all those in receipt of standard and emergency benefit, and the percentage appears to be still growing. In April 1929, about four-fifths of the recipients of emergency benefit had exhausted their claims to insurance benefit and one-fifth had not accumulated 26 weeks' contributions.

Seasonal Unemployment.—In November 1928 an amending Act was passed, creating, as a temporary measure, a *third kind* of Unemployment Benefit for those trades which regularly suffer

severe unemployment in the winter, notably the building trade and agriculture. It might have been urged as a matter of theory that it was improper to burden a fund contributed by industries in general with the necessarily heavy costs of relieving unemployment in trades which, regularly every winter, suffer from seasonal stoppages, but, in fact, the actual motive seems to have been less one of policy than of financial necessity. The Insurance Fund, built up, it will be remembered, by employers' and workers' contributions only, was running into debt even before the worst season (January to March) arrived, and the Reich had to step in and save the situation in some way. The result was an interesting experiment in grafting a State donation on to Insurance benefit for certain selected occupations. A special period was declared, lasting from December to March during which, in the selected trades, *Insurance* benefit would only be paid for a maximum of six weeks. At the end of six weeks unemployment relief was continued at the cost of another fund, provided four-fifths by the National Exchequer and one-fifth by the Insurance Scheme. In general the conditions for the receipt of this "seasonal benefit" were the same as those applied to Emergency Benefit, with the important difference that proof of necessity was not enforced.

On February 28, 1929, nearly a million unemployed persons were being relieved by this special fund, over two-thirds of them being in the building trade. At the same time, a further 350,000 unemployed persons, within the same trades, were provided for by the ordinary Insurance Fund, because they had not exhausted their 6 weeks' allowance of benefit.

It is to be noted that although the Government of the Reich provided four-fifths of the funds for Emergency Benefit and special Seasonal Benefit, the control of the funds was vested entirely in the semi-independent Reichsanstalt and its divisional Councils.

Recent Developments.—So heavy has been the drain on the Insurance Fund during the first two years of its existence, that the Reichsanstalt has been compelled to borrow heavily from the Government. In June 1929 the debt exceeded £17,000,000, in spite of the fact that the National Exchequer had paid four-fifths of the cost of seasonal unemployment in the previous winter. During last summer the Fund rather more than held its own, but there was no prospect of avoiding a further avalanche of unemployment in the present winter. Clearly the income from contributions would have to be increased or the benefits reduced. The Trade Unions, with the exception of the Clerks, were in favour of the former, Employers' organisations of the latter

course, but no noticeable body of opinion seems to have demanded that the Government should join as a third contributing party to the Insurance Fund. Such a course would threaten the cherished principle of self-management by industry. Indeed, so far from expecting additional State assistance, it was taken for granted that, during this winter, there would be no repetition of the subsidy from the Reich of four-fifths of the cost of seasonal winter unemployment.

In face of this crisis the first step taken was to organise a thorough statistical investigation of the working of the scheme. The industrial records of no less than 2,500,000 claimants were collected and analysed. Secondly, a Committee, known to some as the "German Blanesborough" Committee, was appointed with the twofold object of finding an acceptable way out of the financial deadlock and of examining the very widespread charges of abuse of the benefit rules under the scheme. In August last the Committee duly reported. They suggested numerous reforms of law and procedure to tighten up the scheme, and recommended that the joint contribution of employers and workers should be temporarily raised from 3 per cent. to $3\frac{1}{2}$ per cent. of wages; the rates and duration of benefit and allowances were to remain as before. There followed two months of contentious discussion in the Reichstag, as the result of which the Government dropped the proposal to raise the contributions and concentrated on a programme of economies and minor reforms.

No attempt will be made here to describe the many restrictions and safeguards introduced into the scheme by the Act of 12th October last, but some day, when the British authorities are overhauling our own Insurance benefits in a less expansive mood than possesses them at present, the experiments of a foreign country, working the only comparable scheme in the world, may be found to be worthy of study.

By the economies which have now been enacted the German Ministry of Labour hopes for a saving of £5,000,000 a year, but, even if these anticipations are correct, they will not go far towards bridging the gap between the income and expenditure of the Fund. It is, for instance, generally assumed that, so far from paying off any debt, the Fund will incur a further deficit of at least £10,000,000 during the present winter. The Government and the Reichstag cannot, therefore, long postpone the unwelcome task of dealing with the contribution income.

R. C. DAVISON

November 1929.

THE ECONOMIC ADVISORY COUNCIL

THE Treasury minute, dated January 27, appointing an Economic Advisory Council (Cmd. 3478, price 1d. net) is printed below. The decision of the Government to set up the Council was announced in the House of Commons by the Prime Minister on January 22. The minute is as follows :

The First Lord calls the attention of the Board to the decision of his Majesty's Government on January 16, 1930, to establish an Economic Advisory Council. This will be a standing body reporting to the Cabinet, and its purpose, position in relation to Departments, organisations, and functions will be as follows :

Purpose.

To advise his Majesty's Government in economic matters.

To make continuous study of developments in trade and industry and, in the use of national and Imperial resources, of the effect of legislation and fiscal policy at home and abroad, and of all aspects of national, Imperial and international economy with a bearing on the prosperity of the country.

Position in relation to Departments.

The Council will be subject to the general directions of the Prime Minister, and its expenses will be borne on the Treasury Vote.

It will take over and expand the functions of the existing Committee of Civil Research.

It will keep in close touch with Departments affected by its work with a view to the concerted study of economic problems of national interest, but it will interfere in no way with the functions or responsibilities of Ministers or of the Departments over which they preside, and it will have no administrative or executive powers.

Organisation.

1. The Chairman of the Council will be the Prime Minister, and the other members will be as follows :

(a) The Chancellor of the Exchequer, the Lord Privy Seal (while the present duties are attached to that office), the President of the Board of Trade, and the Minister of Agriculture and Fisheries.

(b) Such other Ministers as the Prime Minister may from time to time summon.

- (c) Such other persons chosen by the Prime Minister in virtue of their special knowledge and experience in industry and economics.

The Council will meet when summoned by the Chairman, and as regularly as is found possible.

2. The Chairman may appoint standing committees and also such committees for special purposes as may be required.

3. The Council will have a secretary, and assistant secretaries, at least two of whom will be economists, together with such staff as may be found necessary.

Functions.

Providing that it acts after receiving the approval of the Prime Minister, the Council may initiate inquiries into, and advise upon, any subject falling within its scope, including proposals for legislation. The Council shall consult Departments and outside authorities in regard to any work in hand or projected and shall collate such statistical or other information as may be required for the performance of its work. The Council shall also cause to be prepared a list of persons with industrial, commercial, financial and working-class experience, and persons who have made a special study of social, economic and other scientific problems who might assist the Council by serving on committees or as advisers in matters of which they have expert knowledge, or in other ways.

Its reports and work will be confidential unless the Council advises the Prime Minister otherwise. Any action arising out of them will be taken on the sole responsibility of his Majesty's Government.

Notes.

1. Mr. T. Jones, C.H., Deputy Secretary of the Cabinet, has been appointed Secretary to the Council.

2. It is estimated that the additional charge will amount to not more than £6,500 per annum (including clerical and typing assistance), for which provision will be made in the Treasury Vote for the ensuing financial year. The expenditure incurred during the present financial year, which will be quite small, will be met out of savings.

3. The offices of the Council will be situated at 2 Whitehall-gardens, S.W.1.

The Economic Advisory Council has been constituted as follows :

The Right Hon. J. RAMSAY MACDONALD, M.P., Prime Minister. (*Chairman.*)

The Right Hon. PHILIP SNOWDEN, M.P., Chancellor of the Exchequer.

The Right Hon. J. H. THOMAS, M.P., Lord Privy Seal.

The Right Hon. W. GRAHAM, M.P., President of the Board of Trade.

The Right Hon. NOEL BUXTON, M.P., Minister of Agriculture and Fisheries.

Sir ARTHUR BALFOUR, Bt., K.B.E., Chairman of the Government Committee on Industry and Trade, 1924.

Vice-President of the International Chamber of Commerce.
Managing Director of Arthur Balfour & Co., Ltd.

ERNEST BEVIN, Esq., Secretary, Transport and General Workers' Union.

W. R. BLAIR, Esq.,

Director of the Co-operative Wholesale Society.

Director of the Co-operative Insurance Society.

Director of the Irish Agricultural Wholesale Society.

Sir JOHN CADMAN, G.C.M.G.,

Chairman of the Anglo-Persian Oil Company.

Director of the Suez Canal Company.

W. M. CITRINE, Esq.,

General Secretary to the Trades Union Congress General Council.

G. D. H. COLE, Esq., University Reader in Economics, Oxford.

ERNEST DEBENHAM, Esq.,

Director of Lloyds Bank and Royal Exchange Assurance Corporation.

Sir ANDREW DUNCAN,

Chairman of the Central Electricity Board.

Director of the Bank of England.

Sir DANIEL HALL, K.C.B., F.R.S.,

Director of the John Innes Horticultural Institution.

Sir WILLIAM HARDY, F.R.S.,

Director of Food Investigation, Department of Scientific and Industrial Research.

Sometime Secretary of the Royal Society.

J. M. KEYNES, Esq., C.B.,

Fellow and Bursar of King's College, Cambridge.

Secretary of the Royal Economic Society.

- Sir ALFRED LEWIS,
Director and Chief General Manager of National Provincial
Bank, Ltd.
Director of the Bank of British West Africa, Ltd.
- Sir WM. McLINTOCK, G.B.E., C.V.O.,
Senior Partner, Thomson, McLintock & Co., Chartered
Accountants.
Member of the Royal Commission on Income Tax.
- Sir JOSIAH STAMP, G.B.E.,
Chairman and President of the Executive London, Midland
and Scottish Railway.
Director of the Bank of England.
- R. H. TAWNEY, Esq.,
Reader in Economic History, University of London.
Member of Consultative Committee of Board of Education.
Member of Coal Industry Commission, 1919.

Members of the Staff

- Mr. THOMAS JONES, C.H., Deputy Secretary, Cabinet.
(Secretary.)
- Mr. HUBERT D. HENDERSON, formerly University Lecturer in
Economics, Cambridge, and Editor of the *Nation and
Athenæum*.
- Mr. A. F. HEMMING, C.B.E., formerly Assistant Secretary,
Committee of Civil Research.
- Mr. H. V. HODSON, Balliol College, Oxford; Fellow of All Souls
College, Oxford; Staff of the *Economist*.
- Mr. COLIN G. CLARK, Scholar of Brasenose College, Oxford;
School of Social Science, University of Liverpool.

OFFICIAL PUBLICATIONS

Bulletin of the Kingdom of Roumania Monopolies Institute.

THIS Bulletin covers the first two quarters since the formation of the Monopolies Institute in February 1929, and includes the financial statements to July.

The purpose and operation of the Institute are determined as follows:—"The Monopolies Institute is entrusted with the exploitation of the monopolies (tobacco, matches, playing cards, salt, explosives, cigarette paper). It enjoys full civil personality and financial autonomy. The Institute shall undertake all commercial and financial operations (in particular the issue of loans and granting of loans) in the interest of the monetary stabilisation

and economic development of the State and its public establishments."

The price of the monopoly concession was fixed by the Act at 300 million gold dollars, plus the annual royalties during the life of the concession. The amount of these royalties is the object of a special agreement, which determines the conditions of the monopoly concession and the obligations assumed by the Institute for the account of the State, and toward the banks which issued the Stabilisation and Development Loan of 1929.

The net surplus of the gross receipts, after the service of the loan and operating expenses have been met, is meanwhile paid to the State as a quota of the annual royalty.

When the Institute has paid the total amount of 300 million dollars (which will be paid partly by the present Stabilisation Loan and partly by future loans), the royalty shall be fixed by an annual agreement.

OBITUARY

DR. J. W. JENKS

DR. JEREMIAH WHIPPLE JENKS, at one time president of the American Economic Association, died in August 1929, in New York City, in his seventy-second year.

Born in St. Clair, Michigan, Dr. Jenks graduated from the University of Michigan in 1879. At Mt. Morris College, his first appointment, he taught Latin, Greek and German, but at the same time continued his law studies, being admitted to the Michigan bar in 1881. Knox College, of Galesburg, Illinois, called him a few years later. Here he taught Political Economy and English literature. A short period of two years followed at Indiana University before he accepted the Chair of Political Economy at Cornell University, where he remained for several decades. In 1912 he went to New York University as research professor of Government.

His university connections were combined with many Government positions where his expert knowledge, open-mindedness and eminently fair judgment were of the greatest value. As adviser and consultant in weighty affairs of state, his opinion was constantly sought. The newly-organised United States Department of Labour first utilised his services in a study of trusts and combinations. Out of these investigations came the publication

of the *Trust Problem*, still widely used, although published at the beginning of the century. His next work was done for the War Department, largely in the Philippines. While serving this Department he visited most of the countries of the Orient, and laid the foundation for a long period of friendly and useful service to the Government of China, more particularly in the direction of currency reform. Later as a member of the United States commission on International Exchange he made a report on currency reform in China. About this time he was also employed by the Mexican Government as an expert in the same field.

In 1907 his versatility in the field of economics and the fairness of his investigating mind brought him membership on the United States Immigration Commission. The monumental report made by this body in 1910 did much to change the current of American thought on the problem, and its findings made clear the necessity of restricting immigration if American standards were to be maintained. Dr. Jenks took an active part in the discussion and did much to mould the subsequent legislation.

Other activities included the High Commissionership of Nicaragua, the position of Arbitrator in Industrial Disputes, and the Directorship of the Far Eastern Bureau, an institution devoted to a better understanding of Oriental affairs, with particular reference to China. He was also a Director of the Pacific Railways and of the National Bank of Nicaragua. From the inception of the Boy Scout movement he became an active supporter as a member of the Executive Board of its national organisation.

Dr. Jenks was a prolific writer. Among his works in the political and economic field were *The Trust Problem*, *Principles of Politics*, *The Immigration Problem*, *Business and the Government*, *Great American Issues*, written in collaboration with John Hays Hammond; *Government Action for Social Welfare*; *We and our Government*, in collaboration with Rufus D. Smith, and *The Political and Social Significance of the Life and Teachings of Jesus*.

Despite this long and useful Government service extending over a period of four decades, it is as a great teacher and a friend of youth that he will be primarily remembered. The lessons derived from his activities as adviser to Governments were the grist for his teaching mill, and were given to his students in digestible form after his analytical and eminently fair mind had worked the material over. His teaching had qualities of simplicity, depth and vision, and he never failed to inspire the young people who sat under, or rather with him. Favourite classroom expressions of Dr. Jenks were, "On the other hand,"

or "Let us reason together." This was characteristic of his approach to any problem.

His death brought to a close a highly useful life. His memory will be carried on through the many students whom he inspired to careers of public service.

RUFUS D. SMITH

New York University.

F. P. RAMSEY

THE death at the age of 26 of Frank Ramsey, Fellow of King's College, Cambridge, sometime scholar of Winchester and of Trinity, son of the President of Magdalene, is a heavy loss—though his primary interests were in Philosophy and Mathematical Logic—to the pure theory of Economics. From a very early age, about 16 I think, his precocious mind was intensely interested in economic problems. Economists living in Cambridge have been accustomed from his undergraduate days to try their theories on the keen edge of his critical and logical faculties. If he had followed the easier path of mere inclination, I am not sure that he would not have exchanged the tormenting exercises of the foundations of thought and of psychology, where the mind tries to catch its own tail, for the delightful paths of our own most agreeable branch of the moral sciences, in which theory and fact, intuitive imagination and practical judgment, are blended in a manner comfortable to the human intellect.

When he did descend from his accustomed stony heights, he still lived without effort in a rarer atmosphere than most economists care to breathe, and handled the technical apparatus of our science with the easy grace of one accustomed to something far more difficult. But he has left behind him in print (apart from his philosophical papers) only two witnesses to his powers—his papers published in the *ECONOMIC JOURNAL* on "A Contribution to the Theory of Taxation" in March 1927, and on "A Mathematical Theory of Saving" in December 1928. The latter of these is, I think, one of the most remarkable contributions to mathematical economics ever made, both in respect of the intrinsic importance and difficulty of its subject, the power and elegance of the technical methods employed, and the clear purity of illumination with which the writer's mind is felt by the reader to play about its subject. The article is terribly difficult reading for an economist, but it is not difficult to appreciate how scientific and æsthetic qualities are combined in it together.

The loss of Ramsey is, therefore, to his friends, for whom his personal qualities joined most harmoniously with his intellectual powers, one which it will take them long to forget. His bulky Johnsonian frame, his spontaneous gurgling laugh, the simplicity of his feelings and reactions, half-alarming sometimes and occasionally almost cruel in their directness and literalness, his honesty of mind and heart, his modesty, and the amazing, easy efficiency of the intellectual machine which ground away behind his wide temples and broad, smiling face, have been taken from us at the height of their excellence and before their harvest of work and life could be gathered in.

J. M. K.

C. P. SANGER

WE deeply regret to record the death of Mr. C. P. Sanger on February 8 at the age of fifty-eight. Mr. Sanger, who was formerly a Fellow of Trinity College, Cambridge, and practised as a barrister-at-law, had drifted somewhat away from economic studies in recent years. But he was at one time a leading authority on mathematical and statistical economics. He had lectured on these subjects in the University of London, and had often examined in the Economics Tripos at Cambridge. He had been a frequent contributor to the *ECONOMIC JOURNAL*—I have been astonished on looking up the records to find that he had contributed to our pages no less than fifty times—and had served on the Council of our Society. He will be particularly regretted by members of the Royal Statistical Society, in whose proceedings and activities he had taken an active part.

Sanger's acute and critical mind, with its bird-like flashes, was not of the kind to deliver itself in treatises. It was in conversation, in discussion and in teaching that his gifts were to be admired and appreciated. He will be greatly lamented, not least for his sweet personality and gift for lifelong friendships, by all those who have taken part by word of mouth in the semi-academic London world of economic discussion during the last thirty-five years.

Sanger and Ramsey were both scholars of Winchester and of Trinity, both mathematicians by *métier* who were strongly drawn to economic science. Commemorating Sanger in the *Nation and Athenæum* of February 22, Mr. G. Lowes Dickinson writes of him as follows, joining Frank Ramsey with him (by reference though not by name) :—

It does not become a Cambridge man to claim too much for his university, nor am I much tempted to do so. But there is, I think, a certain type, rare, like all good things, which seems to be associated in some peculiar way with my alma mater. I am thinking of men like Leslie Stephen (the original of Meredith's Vernon Whitford), like Henry Sidgwick, like Maitland, like one who died but the other day with all his promise unfulfilled. It is a type unworldly without being saintly, unambitious without being inactive, warm-hearted without being sentimental. Through good report and ill such men work on, following the light of truth as they see it; able to be sceptical without being paralyzed; content to know what is knowable and to reserve judgment on what is not. The world could never be driven by such men, for the springs of action lie deep in ignorance and madness. But it is they who are the beacon in the tempest, and they are more, not less, needed now than ever before. May their succession never fail!

J. M. K.

EUGENIO RIGNANO

WE regret to announce the death of Signor Eugenio Rignano, which occurred at Milan on February 9. His scientific pursuits extended to biology, psychology and philosophy, to which he contributed a series of volumes; and the wide range of his interests found an adequate expression in *Scientia*, the international review of scientific synthesis which he founded and edited during twenty-three years. Nevertheless, his contribution to economics deserves to be mentioned. His name will be chiefly associated, for readers of this JOURNAL, with the scheme for the reform of death duties which he first advanced in 1901, in a booklet printed in Italian, as a method for bringing Socialism into harmony with Liberal economic doctrine; it was translated into several languages, and an English translation was published in 1925. The essence of the plan is that a man's savings, when left by him in the first instance, should pay a low rate of duty; when left a second time by his heirs, they should be subject to a higher rate of duty; and the rate of duty should increase with the remoteness of the inheritor from the original saver, until it became confiscatory. The basis of the proposal being the presumption that the average man cares very little for the heirs of his heirs, and that consequently his motive to saving will not be impaired by heavy taxation of his remote descendants. The scheme attracted considerable attention and

was discussed, amongst English economists, by Professor Pigou, Sir Josiah Stamp and Dr. Dalton; an outline of the plan, by Signor Rignano, appeared in this JOURNAL in 1919. His loss will be sadly felt by his numerous friends and admirers, who will not forget the candour and ingenuity of his writings, the extent of his learning, and above all that love of truth and virtue which has ennobled, in every day of his life, his thought and his work.

A. L.

CURRENT TOPICS

THE following have been admitted to membership of the Royal Economic Society :—

Adams, B. C.	Coombs, Prof. W.	Gates, H. F. A.
Adams, F.	Cooper, E. C.	Goodman, A. F.
Addy, P. C.	Cooper, J.	Graham, M. E.
Allen, R. G. D.	Cormack, W. S.	Griffiths, T. E.
Arlidge, J. M.	Couban, S. J.	Guha, S. K.
Askham, H. V.	Crabtree, J. A.	Gupta, S.
Avallone, Dr. A.	Craven, E.	Harris, H. F. P.
Aylen, F. C.	Critchlow, B. G.	Hill, A.
Baines, W. H.	Dalal, T. B.	Hill A. H. E.
Baker, C. N.	Das, R. N.	Hoe, T. B.
Ball, A. L.	Daver, N. B.	Holman, T. F.
Barman, T. G.	Davies, J.	Hon, Prof. R. C.
Barnitt, R. S.	Davies, J. K.	Hopkins, H. P.
Barr, Y.	Diamond, A. E.	Hunter, E.
Bayford, J. A.	Dickinson, W.	Hutchings, A. W. S.
Bell, S. A.	Dolley, Dr. J. C.	Jannaway, A. W.
Black, R. A.	Dowling, J. W.	John, R.
Bland, F.	Doyle, C. A. L.	Karsondas, C.
Blum, S.	Drinkwater, H.	Kay, R. E.
Bose, N.	Dubash, S. F.	Kearsey, H. E.
Brech, E. F. L.	Durbin, E. F. M.	Keen, R. S. J.
Brimblecombe, S. R.	Dutt, Prof. S. C.	Kendall, W. L.
Broadbent, P. B.	Eastham, J. K.	Khandilwal, H. P.
Busfield, H. H.	Ellis, J.	King, H. W. C.
Cass, W. G.	Errington, R. P.	Knapp, Dr. B.
Charge, W. T.	Fellman, A.	Knowles, F. W.
Cheng, Ming-Ju	Flynn, B. D.	Landless, E. K.
Chitré, B. A.	Forss, A. C.	Langmaid, A. G. R.
Church, J. F.	Ganong, C. K.	Latey, S. G.
Clarke, K. A. R.	Gardner, J.	Latham, J.

Lewis, H. P. M.	Payne, P. W.	Sewell, J.
Lewis, L. C.	Peabody, G. F.	Simiand, Prof. F.
Lewis, R. S.	Perry, V. F.	Simmonds, G. S.
Lollar, E. J.	Perry, W.	Skelton, G. F.
Loveridge, A.	Pitt, G. S. Jr.	Sladen, K. R. L.
Ludford, L.	Potter, S. B. M.	Slemr, Prof. Dr. J.
McLeod, A.	Price, S.	Smeeton, A. G.
Machin, H.	Puxley, H. L.	Smith, G. A.
Macmenemey, R.	Quarmby, J. W.	Spriggs, M. G.
Mainstone, F. J.	Radford, W. F.	Stagg, R. P.
Majumdar, N. K.	Ramanujam, T. A.	Stone, E. J.
Margolin, R.	Ramaswamy, H. S.	Suzuki, M.
Marquand, H. A.	Razvi, S. M.	Taylor, B. G.
Martin, H. B.	Reast, J.	Tolley, C. H.
Matthews, L. R.	Rennie, A.	Towers, W. M.
Matthews, R. P.	Roberts, S. G.	Trifounovitch, Prof.
May, H. W.	Robertson, B. F.	M.
Mitchell, R. T.	Ross, L. O.	Wallace, H. W., M.P.
Mohan, T. N.	Roots, T. W.	Walls, R. W.
Mookerjee, S. N.	Rubinstein, I.	Wasif, M. A.
Morrison, P. A.	Sadie, A.	White, J.
Mott, Miss J.	Saito, Y.	Willdigg, H.
Oliver, E. L.	Sastry, M. S. N.	Williams, F. C.
Osman, A. M.	Saunter, J. H.	Willsmore, A. W.
Naidu, V. P.	Scarborough, W. T.	Wimalaratne, A. T. P.
Norblads, A. B. L.	Schlittler, H. E.	Wood, A.
Parker, A. R.	Scott, G. C.	Wood, J.
Patterson, T. P.	Scrivener, G. R.	Worrall, L. J.
Pattison, W. L.	Senogles, H.	Worsley, J. H.
Payne, Prof. W. E.		

The following have compounded for life membership of the Society :—

Blackett, Sir Basil P.	Hay, N. C. B.
Bober, Prof. M. M.	Hargreaves, E. L.
Bowyer, S. J.	James, F. C.
Breeze, G.	Monroe, A. E.
Buckingham, A. T.	Nicoll, J. G. D.
Dastur, M. H.	Olphert, J. W.
Farrar, M. F.	Patton, F. L.
Gandhi, M. P.	Sloan, S. J. E.
Glover, C. A.	Wood, L. R.

The following have been admitted to Library membership of the Society :—

Banca Commerciale Italiana, Milan. (Composition.)
Edinburgh University Library.
Government of Mysore, Bangalore.
King's College, Cambridge.
National Labour University, Shanghai.
Ohara Institute of Social Research, Osaka, Japan.
University of Otago Library, Dunedin, New Zealand.
(Composition.)

THE Association of Teachers of Economics, which had not met for two years, held a successful Conference, from January 3rd to January 6th, 1930, at Chancellor's Hall, Birmingham. Thirty-six members were present. In addition to the meetings for discussion, which were held in the Common Room at Chancellor's Hall, visits of inspection were made to Hamstead Colliery, Great Barr, to Fort Dunlop, and to the University of Birmingham buildings in Edgbaston.

On the Friday evening Mr. Hubert Phillips read a paper on Social Insurance, in which he considered how far our present social services were financed by taxation and how far they were genuine insurance. In particular, he devoted some space to considering the incidence of the provision of unemployment benefit and its effects upon the mobility of labour. One of the best discussions of the week-end was opened by Professor Clay and Mr. D. H. Robertson, who dealt with the relation of Banking to Industrial Fluctuations. They concentrated mainly upon recent events in Great Britain. On the Sunday morning Sir William Beveridge set out reasons for doubting "whether optimum population was worth talking about." Mr. E. A. G. Robinson seconded him, and a good discussion followed. On the Sunday evening Professor J. G. Smith opened a discussion on Curricula in University Schools of Business Administration. He confined himself fairly closely to an explanation of the various considerations which have moulded the course in the Faculty of Commerce in Birmingham. Sir William Beveridge outlined what seemed to him a desirable fourth-year course in Business Administration for graduates in Economics, History, Political Science and like subjects; and Professor Sargent Florence, contrasting his teaching experience in Cambridge and Birmingham, claimed that training in Economics for undergraduates intending to enter

industry should be different from that given to those primarily interested in politics and public administration. Mr. J. A. Bowie, Mr. T. S. Ashton and many other members described their own experience and methods.

At a short business meeting the following committee was elected: Sir William Beveridge (Chairman), Mr. T. S. Ashton, Professor P. S. Florence, Miss L. Grier, Mr. R. F. Harrod, Mr. D. T. Jack, Mr. R. A. Macdonald, Mr. J. M. Rees, Mr. E. A. G. Robinson, and Mr. H. A. Marquand (Hon. Secretary and Treasurer). The annual subscription is five shillings, and membership is open (a) to teachers of Economics, Economic History, Sociology, Commerce and such kindred subjects as the Association may from time to time approve, in British and Irish Universities and University Colleges; (b) subject to the approval of the Committee in each case, to persons who have been engaged as such teachers, or who are or have been employed in the extra-mural teaching of Economics and kindred subjects, and whose co-operation in the work of the Association is likely in the opinion of the Committee to be advantageous to the Association. The Hon. Secretary will welcome inquiries and applications for membership, which should be addressed to him at The University, Edgbaston, Birmingham.

MR. D. H. ROBERTSON writes :---“ I have to acknowledge an error in my note on ‘*Fair Wages*’ and ‘*Net Advantages*’ in the last number of the JOURNAL. As Professor Pigou has pointed out to me, I had overlooked a passage on p. 553 of *Economics of Welfare* (3rd edition) in which it is made plain that differences in the opportunity for supplementary family earnings are to be regarded (like differences in the cost of living) as giving rise to ‘costs of movement,’ and also (*unlike* differences in the cost of living) as giving rise to ‘unfairness’ in wages. This latter conception is, I think, at variance with that which Marshall’s catalogue of ‘net advantages’ would suggest: but is clearly quite logical and self-consistent.”

MR. J. R. BELLERBY, Fellow of Gonville and Caius College, Cambridge, and formerly of the International Labour Office, has been appointed to the Brunner Chair of Economic Science in the University of Liverpool as from October 1, 1930. This Chair has remained vacant since the death of Professor E. C. Gonner.

Dr. John Henry Richardson, Assistant Chief of Section in the Research Division of the International Labour Office,

Geneva, has been appointed to the newly-established Montague Burton Chair of Industrial Relations in the University of Leeds.

Professor Henry Clay, who has been Professor of Social Economics in the University of Manchester since 1927, has resigned that position and accepted an appointment as economic adviser in the Securities Management Trust, a subsidiary that the Bank of England has established to handle the industrial interests that the Bank has acquired as a result of the financial reorganisation of a number of firms, and to assist in similar reorganisations in the future. This appointment, together with those to the staff of the Economic Advisory Council reported on a previous page of this *JOURNAL*, represent a further drain on the straitened supply of well-qualified academic economists into non-academic, though nevertheless research, work of one kind or another.

DR. JAMES BONAR, who is Newmarch Lecturer in Statistics for the current year, is delivering six public lectures on "Demography in the Seventeenth and Eighteenth Centuries" at University College on February 11, 18, and 25, and March 4, 11, and 18. The lectures are open to the public without fee or ticket.

Dr. Bonar is proposing to re-edit for the Royal Economic Society the Catalogue of Adam Smith's Library which was published some years ago. He will be very grateful if anyone owning books formerly in the possession of Adam Smith will send exact particulars to him at 13 Redington Road, Hampstead. N.W.3.

THE Manuscript Notes taken of Adam Smith's Glasgow lectures, which were recently sold by auction at Sotheby's, have been acquired for presentation to the Glasgow University Library. A full account of this MS. has been given by Prof. Cannan in his introduction to the reprint, edited by him for the Clarendon Press in 1896.

RECENT PERIODICALS AND NEW BOOKS

Economica.

NOVEMBER, 1929. *The Contribution of Professor Hobhouse to Philosophy and Sociology.* M. GINSBERG. *The Worshipful Company of Framework-knitters.* J. D. CHAMBERS. *Jute Futures in Calcutta.* H. SINHA. *American Treasure and the Rise of Capitalism.* E. J. HAMILTON.

The Economic Record (Melbourne).

NOVEMBER, 1929. *Local Indebtedness in New Zealand.* H. BELSHAW. *Allocation of Factory Output.* C. H. WICKENS. *The Drift to the Towns.* A. G. B. FISHER. *Theories of Population and their Application to Australia.* M. H. BELZ. *Consumers' Co-operation in N.S. Wales.* W. K. MCCONNELL. *Productive Efficiency of Tasmanian Farming.* G. C. BILLING.

Indian Journal of Economics.

OCTOBER, 1929. *Income-tax in India.* P. N. BANERJEA. *Agricultural Cycles and Sunspots.* R. K. MUKERJEE. *Economic Incidence of Tenurial Systems.* P. J. THOMAS.

International Labour Review.

DECEMBER, 1929. *Some Legal Questions relating to International Labour Conventions.* E. MAHAIM. *The Doctrine of High Wages.* J. H. RICHARDSON.

JANUARY, 1930. *A Study of the Relation of Working Hours to Climate.* S. ISHIHARA. *Working Conditions in a Rationalised Industry.* *Wages and Hours in the Coal-mining Industry in 1927.*

Quarterly Journal of Economics.

NOVEMBER, 1929. *Economics and the Idea of Natural Laws.* O. H. TAYLOR. *Composite Demand and Joint Supply in Relation to Public Utility Rates.* R. T. BYE. *Duopoly.* E. H. CHAMBERLIN. *A Neglected English Economist: George Powlett Scrope.* R. OPIE.

American Economic Review.

DECEMBER, 1929. *Quantity Theory and Price Stabilisation.* A. F. BURNS. *Rent under Increasing Returns.* A. B. WOLFE. *Shipping Enterprise of the Australian Government.* O. DE R. FOENANDER. *Sharing Earnings of Reserve Banks.* C. B. UPHAM. *Some Marshallian Concepts.* J. A. MAXWELL.

Harvard Review of Economic Statistics.

NOVEMBER, 1929. *The New York Money Market of 1843 to 1862.* A. H. COLE. *Income Forecasting by the Use of Statistics of Income Data.* J. F. EBERSOLE, S. S. BURR, G. M. PETERSON. *Speculation, Gold, and Bank Policy.* G. E. ROBERTS.

Journal of Political Economy.

- DECEMBER, 1929. *The Theoretical Basis of Economic Policy.* C. GINI. *Salaried Men's Organisations in Germany.* W. T. HAM. *Fruit Distribution in the Canadian West.* J. M. CASSELS. *Brokers' Loans and Bank Deposits.* C. B. HOOVER. *Some Statistical Relations between Wages and Prices.* C. W. COBB.

Political Science Quarterly.

- DECEMBER, 1929. *War Indemnities and Business Conditions.* G. BIELSCHEROSKY. *The Labour Injunction in the New York Needle Trade.* P. F. BRISSENDEN and C. O. SWAYZEE.

Journal of Economic and Business History (Harvard).

- NOVEMBER, 1929. *Origin and Evolution of Early European Capitalism.* J. STRIEDER. *Anthony Bacon, an Eighteenth-century Merchant.* L. B. NAMIER. *The American Grain Trade under the Embargo of 1808.* W. F. GALPIN. *Early French Colonial Policy.* L. VIGNOLS. *Benjamin Gott and the Anglo-American Cloth Trade.* H. HEATON. *History of the Denison Manufacturing Company.* C. HEATH.

WHEAT STUDIES (Stanford, California).

- NOVEMBER, 1929. *The Post-harvest Depression of Wheat Prices.* There is no evidence of a general tendency towards post-harvest depression of prices of Chicago wheat futures. The tendency to post-harvest depression of cash prices is a tendency to depression of cash prices relative to prices of futures.
- DECEMBER, 1929. *The World Wheat Situation, 1928-29.* Bumper crops were harvested in many countries, including Canada and Argentina. The average world yield per acre ranked with the exceptionally high yields of 1915 and 1923. The world crop stood 16 per cent. above the 1922-27 average. For the first time in many years a bumper crop followed a distinctly good crop, and wheat supplies were exceptionally abundant. Prices were low, and in May 1929 Chicago futures fell below \$1 per bushel, the lowest point in post-war years, but on the whole prices were not as low as in 1923-24.
- JANUARY, 1930. *Survey of the Wheat Situation August to November, 1929.* As a result of the excellent wheat, rye and feed-grain crops of Europe and the heavy carry-over of wheat, import requirements for the crop year 1929-30 are relatively small. The volume of international trade may approximate not more than 720,000,000 bushels as compared with 940,000,000 in the previous year. The principal exporting countries harvested small crops. Even so, with the huge carry-overs available from the previous year the carry-over out of 1929-30 looks like being in excess of the average.

Revue d'Économie Politique.

- NOVEMBER-DECEMBER, 1929. *Oscillations boursières, oscillations économiques.* J. DESSIRIER. *La Doctrine socialiste.* E. ANTONELLI. *L'œuvre scientifique de A. C. Pigou.* M. BYÉ. *La développement de la politique commerciale de la Société des Nations.* R. COURTIN.

Journal des Économistes.

NOVEMBER, 1929. *La baisse des valeurs de Bourse aux États-Unis et la prévision des Crises.* E. PAYEN. *Industries d'État et Industrie privée.* G. DE NOUVION. *Les Budgets des principaux pays et les Budgets de l'avenir.* R. J. PIERRE.

DECEMBER, 1929. *Les richesses forestières des principaux pays.* R. J. PIERRE.

Zeitschrift für Nationalökonomie.

NOVEMBER, 1929. *Ein Nachruf, auf Emil Sax.* F. v. BECKERATH. A review of the works of Sax which bear specially on taxation, interest and trade. *Bedürfnis, Wert, und Vorzug.* E. SAX. A posthumous study on the psychological basis of economic theory, edited by Prof. KRAUS. *Grenzkosten und Preis.* A. BILLIMOVIC. A criticism of the "objective" theory of price of Oppenheimer, in which it is argued that the marginal producers can only be determined by subjective elements. *Gibt es einen "Widersinn des Sparens?"* F. A. HAYEK. An examination of the theories of Foster and Catchings, including some remarks on the relations between money and capital. *Verstaatlichung des Kredits?* L. MISES. Discussion of a recent scheme for State management of money and banking, with adverse conclusions.

Zeitschrift für die gesamte Staatswissenschaft.

NOVEMBER, 1929. *Zwischenstaatliche, Kapitalbewegungen und Besteuerung.* T. PAUL. Import and export of capital are affected in certain special ways by taxation. *Besteht die Möglichkeit einer neuen Inflation?* B. MOLL. Certain dangers of the German position may be involved in financial policy as affected by Reparations Taxation and loans for public purposes. *Theoretische Grundlagen der Soziologie.* A. LYSEN. *Integrationslehre und Finanzwissenschaft.* Dr. V. PISTORIUS. *Der gegenwärtige Stand der Kartellfrage.* O. LEHNICH. Based on the legal proceedings of 1928.

JANUARY, 1930. *Unter der Herrschaft des Wortes.* R. STRELLER. A critique of Gottl-Ottliensfeld's arguments, especially on the question of subjective value. *Die Entwicklung der Grundherrschaft in England.* D. M. PETRUSEVSKI.

Archiv für Sozialwissenschaft und Sozialpolitik.

DECEMBER, 1929. *Das Vordringen der Agrardemokratie in Europa und die Lage des Grossgrundbesitzes in Ungarn.* A. DANIEL. *Kassenhaltung und Preisniveau.* E. VON MICKWITZ. *Hochschule und Ausbildung zu sozialen Berufen.* C. J. KLUMKER.

Weltwirtschaftliches Archiv.

JANUARY, 1930. *Die Chance des Kapitalismus.* K. MUHS. *Die lokale und regionale Wirtschaft als Grundlage der Volks- und Weltwirtschaft.* L. BROCARD. *Der Wirtschaftskampf um den Stillen Ozean.* T. SURANYI-UNGER. *Die Entwicklung des schwedischen Aussenhandels und der schwedischen Handelspolitik nach dem Kriege.* K. AMARK. *Trade of the Commonwealth of Australia since the War.* E. T. MCPHEE. *Die Finanzierung des deutschen Einfuhrhandels.* E. THANNHÄUSER. *Die Regiengenossen-*

schaft, eine neue Unternehmungsform. B. LAVERGNE. *Die deutschen Handelskammern im Auslande.* H. KLEIN. *Farmpreisindizes in den V. S. von Amerika.* R. FREUND. *Produktionsindizes.* H. BETZ.

Vierteljahrshefte zur Konjunkturforschung.

SONDERHEFT 14. *Umsatz und Lagerhaltung im deutschen Einzelhandel seit 1924.*

SONDERHEFT 15. *Bestimmungsgründe der Baumwollpreise.*

SONDERHEFT 16. *Die neuzeitliche Umstellung der überseeischen Getreideproduktion.*

Jahrbücher für Nationalökonomie und Statistik.

DECEMBER, 1929. *Volkswirtschaftspolitik als normative Wissenschaft.* H. SCHACK.

JANUARY, 1930. *Die sozialpolitischen Lehren der klassischen Nationalökonomie.* A. WEBER. *Zur Frage der Ueberwälzung und Fernwirkung der Einkommensteuer.* G. HALM. *Ueber das Problem der Möglichkeit und der Zweckmässigkeit einer "Konjunkturlosen Wirtschaft."* J. KEMENYFFI.

Schmollers Jahrbuch.

OCTOBER, 1929. *Wandlungen der Monopoltheorie.* J. DOBRETSBERGER. Since the Middle Ages, monopoly has always been looked upon as ethically wrong. Even the classical economists viewed it as essentially unusual and extraordinary, and in modern economics the competitive basis is still assumed as something normal. Marx showed that capitalistic society, however, rests fundamentally upon a monopoly, i.e. a class monopoly of those who own the instruments of production. But the idea is more extensive even than this—rents, for instance, under a competitive régime, create monopoly. Competition and monopoly are, in fact, nothing but transitional stages in economic development. Competition is more suitable to a rising conjuncture, as in the nineteenth century; monopoly is better in times of depression like the present. There is, therefore, no reason to believe that the present "concentration-enthusiasm" will outlast the post-war depression. *Ricardo-Interpretation und Arbeitswerttheorie.* A. AMONN. A defence of the distinction between the "formal" and "material" problems of distribution (i.e. the general laws of distribution, and the question of whether the actual shares received by the different classes of a given community are large or small), and a criticism of Oppenheimer's interpretation of the Labour Theory of Value. *Das Verhältnis der Geschlechter in den Niederlanden.* S. GARGAS. *Zehn Jahre Sowjet-Industrie.* K. ELSTER. *Gaetano Mosca und seine Staatstheorien.* R. MICHELS. *Können die Lasten Deutschlands aus dem Youngplan bei sinkendem Zinsfuss künftig erleichtert werden?* W. LOSS.

Annali di Economia.

JULY, 1929 (VOL. V, Nos. 1 and 2). *Contributo alla ricerca dell' "ottima imposta."* In this paper, which runs to 244 pages, PROF. EINAUDI deals exhaustively with the theoretical points

involved in the taxation of savings, a discussion to which he has already contributed a series of articles. (A bibliography is given on pp. 27-33.) His conclusion agrees with Mill's well-known theorem that the part of the income which is saved ought to be exempted from the income-tax, if all parts of revenue are to be taxed equally. The first section of the paper summarises the present state of the question. Then two chapters are devoted to the criticism of the view that taxation of savings does not involve duplication, as set forth by Prof. De Viti De Marco in his recent *Primi Principii dell' Economia Finanziaria* (a treatise which Prof. Einaudi describes as "classical"): this view is held to be based upon a contradiction. The bulk of the paper contains a series of new arguments supporting Mill's theorem, discussing in detail the question in relation to varying rates of interest, and to the condition of producers having "periods of production" of different length. Any attempt to tax savings calls forth a series of adjustments in relative prices and rates of capitalisation, which defeat its purpose; taxation of savings is thus shown to be, not only unequal in its effects, but in the long run actually impossible. The theory is then applied to a number of particular problems, and certain practical rules of taxation are deduced; amongst the latter may be mentioned the proposal that the tax on personal incomes should be assessed, not for each individual on the basis of his actual earnings, but for each class on the basis of a "normal" taxpayer of that class. *Le pubbliche finanze e i rapporti economici delle Repubbliche Americane*. C. E. MCGUIRE. *Politica commerciale e bilancia economica dell' Italia nel 1861-1870*. E. CORBINO. The sequel to an article published in the *Giornale degli Economisti* for November 1928. *Sviluppo ed organizzazione dei maggiori porti europei*. V. CORNARO.

JANUARY, 1930 (VOL. VI, No. 1). *I salari incentivi*. F. TAJANI. A diagrammatic representation of various types of premium and bonus wages. *Il commercio estero italiano nel dopoguerra in relazione alle vicende della lira*. S. SPINELLI. *L'industria zootecnica italiana*. L. LENTI.

Giornale degli Economisti.

OCTOBER, 1929. *Depositi e investimenti nel primo secolo delle casse di risparmio italiane*. G. DE PIANTE. The study of the Italian savings bank movement since 1830 reveals, *inter alia*, that political crises have had a much more serious effect in reducing new deposits and encouraging withdrawals than economic crises. In the years of economic crisis since 1918 the increase in total deposits has been specially marked. *Di un caso particolare di "Abwaelzung"*. L. ROZZI. A mathematical investigation into the conditions under which the imposition of a tax proportional to income may lead to an increase in the amount of effort on the part of the tax-payer. *I principii di politica economica di Luca di Samuele Cagnazzi*. G. CARANO-DONVITO. *Qualche chiarimento fondamentale a proposito del concetto di produttività del commercio*. DR. A. BREGLIA discusses in a closely reasoned article the definition of such terms as wealth, economic goods, production, etc. He criticises Say for declaring that production signifies the creation of utility, and prefers to regard as productive any economic activity

which, like the regular consumption of an article, leads to further production. Commerce, in so far as it is an essential part of the chain of production, is fundamentally productive.

NOVEMBER, 1929. The whole of this number is devoted to an appreciation by a number of writers of the work of the great Italian statistician, Professor Rodolfo Benini.

La Riforma Sociale.

NOVEMBER-DECEMBER, 1929. *Il contenuto economico della lira dopo la riforma monetaria del 21 dicembre 1927.* L. EINAUDI. The Law of December 21, 1927, as extended by two Decrees of 1928, declared that Italian paper money (bank-notes) should be convertible into gold. The Bank of Italy is required to ensure, by control of the circulation, by purchase and sale of gold, and by intervention in the market for *Devisen*, that the fluctuations in the exchange of Italian money, in relation to the exchanges with foreign countries in which the convertibility of bank-notes into gold is maintained, shall be kept within the limit of 19·10 for the dollar "all' esportazione" and 18·90 lire "per l'importazione." There is no obligation to exchange notes for gold coin; the minimum amount of gold bullion that can be bought is five kilogrammes of fine gold—equivalent to 63,188·89 lire—and this only at the head office of the Bank in Rome. The Bank is empowered, instead of selling gold, to remit an equivalent amount of foreign *Devisen* of countries in which notes are convertible into gold. When the reserves of the Bank of Italy fell from their highest level of 12,516·1 million lire on March 31, 1928, to the low figure of 10,036·5 million lire on May 31, 1929, fears were expressed that this process might continue and the reserves be gradually drained away. But the locking up of notes in the hands of the Central Bank, which resulted from the sales of gold and foreign currencies, forced down the level of internal prices, and after May 1929 there was a reversal of the previous gold movements, reserves showing a slight though perhaps only temporary increase. The choice of the dollar as the specific unit of account in terms of which the lira was stabilised was due to historical reasons—the effective maintenance of internal convertibility of American currency into gold during the World War. But it seems likely that when Switzerland has repealed the unnecessary and anachronistic law of August 3, 1914, by virtue of which Swiss paper money has remained legally inconvertible, the Swiss franc will supersede the dollar as the typical international unit of account—a change which should be facilitated by the decision to place the headquarters of the new International Bank at Bâle. *Problemi di economia e finanza.* A. CABIATI. A series of interesting notes on the economic effects of the exemption of saving from taxation; the international effects of war indemnities; and the doctrine of purchasing power parity. *Coltura ortense e frutticoltura nel Mezzogiorno.* SIGNOR EVOLI discusses the current proposals to extend greatly the cultivation of fruit and early vegetables in the south of Italy with the aid of large grants of capital by the State. The chief difficulty would lie in finding markets for the produce, which would necessarily have to be found mainly outside Italy. It is probable that any considerable increase in Italian exports of such produce would be

countered by the raising of tariff barriers on the part of the consuming countries, many of which are engaged in making similar developments in portions of their own territories. The perennial problem of the South remains, and there are only two alternatives open: "either agrarian transformation enabling the employment of much labour with sufficient returns to allow a margin for saving, or an open door for emigration." *Esempio storico d'incauto intervento statale.* F. LUZZATTO. *L'organizzazione delle vendite a rate negli Stati Uniti.* M. G. ULLMANN.

Metron.

JUNE, 1929. *La ricchezza privata degli Italiani nel 1929.* A. D. ESPINOSA.

Scientia.

JANUARY, 1930. *The Better Distribution of the Human Race.* G. H. KNIBBS.

Kyoto University Economic Review.

JULY, 1929. *On the Classification of Taxes.* M. KAMBE. *A Reply to Fairplay's Criticism.* S. KOJIMA. Continues a discussion on the question of shipping freights. *On Japan's National Wealth and Income.* S. SHIOMI. *On the Coefficients of Production.* Y. TAKATA. On examination of the methods of Cassel and Walras, designed to show "how far the coefficients of production are determined by technics, and what amount of automatism is possessed by the price of productive goods."

De Economist (Haarlem).

DECEMBER, 1929. *De ontwikkeling van het reparatievraagstuk tot 1 September 1924.* F. H. REPELIUS. A statement of the provisions of the Treaty of Versailles with regard to reparations, followed by a summary of events down to the Dawes Plan. The account is descriptive rather than critical. *Drie eeuwen agrarisch Rusland.* D. VAN BLOM. A discussion of the agrarian problem in Russia from the sixteenth to the eighteenth century, being a summary and a review of Alexandre Miller's *Essai sur l'histoire des institutions agraires de la Russie Centrale du XVI^e au XVII^e siècles*. The subsequent history of Russia is comprehensible only in the light of the conditions in these centuries. *Waarde of Prijs?* G. MORREAU. The conclusion of the discussion as to Böhm-Bawerk's three grounds for interest as applied to "the Robinson Crusoe economy and the socialist state." The writer deals with previous arguments and maintains that interest is a price and not a (subjective) value, that while Robinson may estimate future goods higher, this does not involve an increase in values. Professor Bordewijk replies in a concluding note.

Ekonomisk Tidskrift (Upsala).

1929, No. 1. *A Study of Business Cycles and Economic Laws.* C. ROTHLIEB. The article is a critical review of J. Åkerman's recently published doctorate thesis: *On the Rhythm of Economic Life*, Stockholm, 1928 (Swedish). The article demonstrates business cycles as interference phenomena of economic wave movements, and compares the wave movements of business

cycles with the waves of a swiftly running stream, which display like these a definite conformity to law. Rothlieb holds, contrary to Akerman, that although a certain similarity and conformity to law is indisputable on account of prices being unable to diverge too far from their point of equilibrium without causing a reaction, this conformity to law should not be over-estimated. Periods of business cycles may vary between two and seven years. The irregularity appears so large on closer investigation that the term "law" is put in the shade by the term "history." Even if a curve shows some maximum and minimum points with some even distances, this fact does not make the acceptance of a law necessary. *Gold and Central Banks.* D. DAVIDSON. The article is written in connection with Keynes' statement as to the danger of gold scarcity. The author points out that Keynes has underrated the effect of the dismissal of gold currency from general circulation, because he has only considered the influence on the gold funds of central banks, but not the reduction in the demand for gold which arises from the actual withdrawal of gold in circulation. The problem consists of introducing such arrangements that the supply of monetary gold shall always remain sufficient for the maintaining of a constant value of gold. This entails that the world must become independent of changes in the production of gold, which to a great extent is solved by preventive measures being taken against an abundant production creating a decrease in the value of money, and is best accomplished by co-operation between the leading central banks. If abundant gold production is allowed to reduce the value of money, the result is an increased demand for gold, which, during succeeding years with a diminished gold production, may cause a harmful increase of the value of money.

- 1929, No. 2. *The System of Prices from the point of Capital Theory.* E. LINDAHL. The essay discusses the complications which the element of time involves with regard to the determination of prices. The author states that the systems of Walras, Cassel and Bowley exclude the element of time, and subsequently refers to production without capital, and then endeavours to expand the propositions of Walras and Cassel by successive introduction of the complications in the system caused by the element of time. The first stage is that the future is completely anticipated and that a stationary condition prevails, whereby real capital and rates of interest are introduced. The next stage aims at dynamic conditions, which may be treated in an analogous system of equations, provided that, as above, the future is completely anticipated. In such cases the present prices together with those anticipated in the future form a single system for which the principle of cost is valid. Finally, the possibilities of an extension of the theories to a more reliable condition are discussed. When the future is not wholly anticipated, development will always involve gains and losses for the enterprises, which cause deviation from the principle of cost. *The Problem with regard to the Transfer of the German Reparations.* D. DAVIDSON. The article is written in connection with Keynes' inquiry on the transfer of the German Reparations published in the March issue of the *ECONOMIC JOURNAL*. Davidson holds that Keynes arrives at the result, that the Reparations payments must in the long run cause a decrease

of wages in Germany, only if he proceeds from certain unknown assumptions, which are not included in the Dawes pact. As this is constituted, payments are only necessary in German currency, and foreign countries undertake the transfer risks, whereas Keynes' proposition is based on the supposition that payments should be affected by positive balances of payment in foreign currency. Davidson further holds, contrary to Keynes, that the German loan need not be annulled as long as Reparations payments can be effected in German currency.

- 1929, No. 3. *Capital-disposal and Credit-ratio*. J. ÅKERMAN. The author criticises the expression used by Cassel, "capital-disposal," in connection with K. Kock's doctorate thesis, *A Study of Interest Rates*, and emphasises that the expression does not make clear the real purport of the credit market. The author then proceeds to the question whether central banks can decide the use of credit. The policy of the Federal Reserve system can generally be characterised as aiming at credit rationing in the years 1919-26, price stabilisation 1926-27 and production stabilisation 1928. With regard to the present conditions in the United States, he puts forward the following questions: (1) can the increase of call loans damage industry? and (2) can credit to the call loan market be reduced without causing a general credit restriction? To the first question the author replies in the affirmative, because increased speculation causes a speculative tendency in enterprise, higher interests, capital consumption and elimination of non-competitive enterprises, etc. The second question is replied to in the negative. The utilisation of capital is the most functionable of all values. A decrease of part of its volume entails, therefore, a general reduction. *On the Question of Medieval Villeinage and the Emancipation of the Peasants*. A. MONTGOMERY. The conditions of both the dependency of the peasants and their emancipation were particularly varied. In some quarters the conditions of dependency tended to become more oppressive the greater the landowner's need of labour was. But in other quarters the increased competition for labour, e.g., after the ravages of the plague in the fourteenth century, brought with it an improvement in the conditions of the peasants. In general it would hardly seem that the emancipation of the peasants was connected with any sort of revolutionising reorganisation of the work on the estates. The importance of legislation and usage in regard to inheritance is pointed out. According to the prevailing tendencies in development, changes of ownership might bring about the concentration or the cutting-up of land. The growing number of capitalist farmers was indubitably of the greatest importance for the whole agrarian development in England. The access of prosperity that the towns enjoyed at the end of the Middle Ages involved an extensive exploitation of the country-side, and even if in this connection the old conditions of dependency were lightened, others were not seldom imposed in their stead. Sometimes the initiative for the emancipation of the peasants came from the peasants themselves, and sometimes from the land-owner. The efforts in the direction of emancipation seem to have been less pronounced in France than in England. The tendency towards the emancipation of the peasants that made its appearance in several European countries during the later part of the Middle

Ages led to more radical and permanent results in only a few cases. Elsewhere the movement was interrupted at an early stage, to continue during the eighteenth and nineteenth centuries under the guidance of the State. Finally, the author gives an account of Swedish conditions.

Official Publications.

H.M. STATIONERY OFFICE.

Development Commission. 19th report for the year ended 31st March, 1929. 4s.

Import and export list. Jan. 1930. 9d.

Reparations Commission. XXIIa. Official documents. Report of the Commissioner for the German Railways (Dec. 14, 1929). Report of the Commissioner of the Reichsbank (Dec. 23, 1929). Report of the Commissioner of Controlled Revenues (Nov. 20, 1929). Report of the Trustee for German Industrial Debentures (Nov. 15, 1929). 3s.

Statistical abstract for the United Kingdom. (Cmd. 3465.) 6s. 6d.

Twentieth report of the Commissioners of H.M. Customs and Excise. (Cmd. 3435.) 3s. 6d.

CANADA.

Dominion Bureau of Statistics. Origin, birthplace, nationality and language of the Canadian people. (A census study based on the census of 1921 and supplementary data.) Ottawa: F. A. Acland. 9½". Pp. 224. 50 cts.

INDIA.

Department of Commercial Intelligence and Statistics. Review of the trade of India in 1928-29. (55th issue.) Calcutta: Central Publication Branch. 9½". Pp. xxiv + 276. 5s.

Indian Chamber of Commerce, Calcutta. Annual report of the Committee for the year 1928. Calcutta: M. P. Gandhi. 9½". Pp. xlvii + 603.

NEW ZEALAND.

Census and Statistics Office. Local authorities' handbook of New Zealand, 1929. Wellington: W. A. G. Skinner. 9½". Pp. 740. 7s. 6d.

U.S.A.

Bureau of the Census. Earnings of factory workers, 1899 to 1927: an analysis of pay-roll statistics. By P. F. BRISSENDEN. (Census Monographs X.) 10". Pp. 423. \$1.50.

Bureau of Labor Statistics. Bulletin 465. Beneficial activities of American trade unions. Pp. 229. 60 cts.

Bulletin 485. Proceedings of the 50th annual meeting of the International Association of Industrial Accident Boards and Commissions, Sept. 11-14, 1928. Pp. 256. 50 cts.

Bulletin 490. Statistics of industrial accidents in the United States to the end of 1927. Pp. 187. 30 cts.

Bulletin 491. Handbook of labor statistics, 1929 edition. Pp. 914. \$1.

Bulletin 492. Wages and hours of labor in cotton-goods manufacturing, 1910 to 1928. Pp. 52. 10 *cts.*

Bulletin 493. Wholesale prices 1913 to 1928. Pp. 257. 40 *cts.*

Bulletin 495. Retail prices 1890 to 1928. Pp. 219. 35 *cts.*

Bulletin 497. Wages and hours of labor in the lumber industry in the United States: 1928. Pp. 77. 15 *cts.*

Bulletin 498. Wages and hours of labor in the boot and shoe industry, 1910 to 1928. Pp. 95. 20 *cts.*

Bulletin 499. History of wages in the United States from Colonial Times to 1928. Pp. 527. 80 *cts.*

INTERNATIONAL LABOUR OFFICE.

Seasonal unemployment in the building industry in certain European countries, by L. HERSCH. Geneva: I.L.O. 9½". Pp. 74. 1s. 6d.

NEW BOOKS

British.

Agricultural Economics Society. Proceedings of Conferences 1928 and 1929. Reading: E. Thomas, The University. 9½". Pp. 131. 2s. 6d.

ANSTEY (V.). Economic Development of India. Longmans. 8½". Pp. 581. 25s.

BASTER (A. S. J.). The Imperial Banks. P. S. King. 8½". Pp. 275. 12s. 6d.

BRIJ NARAIN. Indian Economic Life, Past and Present. Lahore: Uttar Chand Kapur and Sons. 9". Pp. 578. Rs. 7.8.

DONALDSON (J.). International Economic Relations. Longmans, Green, 1928. 7½". Pp. 674. 16s.

EINZIG (P.). The Bank for International Settlements. Macmillan. 8½". Pp. 179. 7s. 6d.

GERIG (B.). The Open Door and the Mandates System. Allen and Unwin. 8½". Pp. 236. 10s.

HURST (A. H.). The Bread of Britain. Oxford University Press. 8½". Pp. 79. 2s. 6d.

INNIS (H. A.), ed. Select Documents in Canadian Economic History, 1497-1783. Toronto: Univ. of Toronto Press. 9". Pp. 581. \$4.

KIRK (J.). The Economic Aspects of Native Segregation in South Africa. P. S. King. 7½". Pp. 148. 6s.

LAMOND (E.). A discourse of the Common Weal of this Realm of England. First printed in 1581 and commonly attributed to W.S. 2nd impression. Cambridge Univ. Press. 7¼". Pp. lxxii + 208. 6s.

MALLET (SIR B.) and GEORGE (C. O.). British Budgets. Second series, 1913-14 to 1920-21. Macmillan. 8½". Pp. xxii + 407. 20s.

MARTI (O. A.). *Economic Causes of the Reformation in England*. Macmillan. 7½". Pp. 254. 10s. 6d.

MURRAY (D.). *Chapters in the History of Bookkeeping Accountancy and Commercial Arithmetic*. Glasgow: Jackson, Wylie & Co. 8½". Pp. 519. 21s.

NISBET (J. W.). *A Case for Laissez-faire*. P. S. King. 7¼". Pp. 245. 7s. 6d.

O'BRIEN (G.). *Notes on the Theory of Profit*. Dublin: Hodges Figgis & Co. 8¼". Pp. 83. 5s.

ORWIN (C. S.). *The Reclamation of Exmoor Forest*. Oxford Univ. Press. 8¼". 172. 10s. 6d.

PORTUS (G. V.). *The American Background, sketched for Australians*. Melbourne: Macmillan. 7". Pp. 126. 6s.

POWELL (A. E.). *The Flow Theory of Economics: a brief introduction to the subject*. P. S. King. 7¼". Pp. 97. 5s.

SMART (R. C.). *The Economics of the Coal Industry*. P. S. King. 8½". Pp. 268. 12s. 6d.

THORNTON (G.). *A History of Clare, Suffolk*. Cambridge: W. Heffer. 8½". Pp. xxii + 244. 15s.

TOUTAIN (J.). *The Economic Life of the Ancient World*. Kegan Paul. 9½". Pp. xxvii + 361. 16s.

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THE ECONOMIC JOURNAL

JUNE, 1930

BRITISH FOREIGN INVESTMENTS IN 1928

IN 1929 I published the results of my first inquiry into the amount of British capital invested overseas and the volume of annual repayments to this country.

At the time it was emphasised that the results were in the nature of pioneer attempts, subject to revision with the invention of better methods of pursuing the inquiry in future years. During the past year I have been endeavouring to obtain more accurate results and to perfect the machinery of the inquiry.

SCOPE OF THE INQUIRY

In the course of this work certain difficulties have become evident with the closer examination and more detailed knowledge now available of the subject. In view of this, it has been thought best to publish only those results where a fair degree of accuracy by statistical measurement has been ensured, leaving other parts of the problem subject to a degree of estimate to be dealt with subsequently, if the efforts which I am still making to find better methods of measurement are successful.

For these reasons it is not possible to indicate any broad changes which have taken place in the nature of our investments overseas since the first investigation, but this should be possible in future years as the methods of inquiry are put on a comparable basis.

The figures which I have examined relate to capital invested in those overseas loans to Foreign and Dominion Governments, States and Municipalities which are included in the Stock Exchange Official Intelligence and service of which is in any degree effected in London. Results relating to other forms of overseas investments and domestic and overseas capital repayment have been omitted from my inquiry because—

1. In the case of figures relating to redeemable capital invested at home it has not been possible to separate satisfactorily inter-company holdings.
2. Figures relating to the investment of British capital in companies *registered abroad* cannot accurately be determined. Apart from this difficulty there is also the further problem of taking account of the considerable investment by our nationals in companies operating abroad not mentioned in the Stock Exchange Official Intelligence and in foreign bonds and stocks not quoted here. For example, although it is seldom the practice of residents of the United States to subscribe to the sterling portion of a loan issued both in London and New York, on the other hand, British nationals frequently subscribe for or purchase large quantities of the dollar portion of such an issue. There is also a large and increasing investment by our nationals in United States securities issued and quoted only in New York. This investment has been greatly stimulated by the activities of the agencies of United States banks and of bondselling houses in London, which have largely increased in number during recent years.
3. Statistics relating to capital invested in British companies registered at home but operating abroad have this year been the subject of a separate inquiry by the *Economist*, of which I received notice. I have in consequence taken their results this year, instead of carrying out a separate investigation on this part of the problem, which would have meant duplication of inquiries from company secretaries.

I should like at this point to acknowledge the courtesy of the *Economist* in this respect, and also to express my appreciation of the generous manner in which some sixty banks have again placed material at my disposal for the inquiry.

In addition to the difficulty mentioned above of ascertaining the considerable British holding of dollar bonds, any attempt at an estimate of the net income and net capital investment of the United Kingdom from foreign loans or from British companies operating abroad encounters the further and increasingly important problem of taking account of the acquisition by American finance and other companies of substantial or controlling interests in British companies operating at home or abroad. The

growing encroachment of American interests in British industry, commerce and finance is giving rise to a problem which needs the more to be stressed since there is this prevailing ignorance of the dimensions it has reached.

For example, according to Standard Statistics Service, the General Electric Co. of New York acquired in 1928 a substantial interest in the Associated Electrical Industries, a British company, which in its turn controls the British Thomson Houston Co., Metropolitan Vickers Electrical Products, Edison Swan Electric Co. and Ferguson Pailin Ltd. These companies form the largest combination for the manufacture and distribution of electrical equipment in Great Britain.

Another typical example is found in the activities of the International Telegraph and Telephone Co. In addition to its control of various British companies operating in South America, such as the Chile Telephone Co., the Montevideo Co. and the United River Plate Co., it also owns factories in England, and acquired in 1928 controlling interests in Creed & Co. Ltd., Croydon, manufacturers and world-wide distributors of telegraph equipment.

Again, during 1928 and 1929 the Electric Bond and Share Co. of America, through its subsidiary the American and Foreign Power Co., not only acquired the Mexican and Chile interests of the Whitehall Electric Investments Ltd. and the Argentine interests of the Atlas Light and Power Co., but also obtained a 50 per cent. interest in Tata and Sons Ltd., a company controlling the electric power supply in Bombay. In addition, it was largely responsible for the formation early this year of the European Electric Corporation Ltd., the main purpose of which is the control of important sources of power supply throughout Europe.

These examples should serve not only to illustrate the difficulties in the way of an accurate estimate of net British income and capital investment, but also to emphasise the growing American influence in public utility companies throughout the world. This influence is serious from the point of view of our overseas trade, since the change from British to American ownership must obviously lead in many cases to changes in the source of supply of equipment and credit, etc., with a consequent loss to our trade, shipping and finance. The possibility of an unchecked development of this tendency, unless counteracted by reinvestment of the monies received in similar British enterprises abroad, constitutes a grave menace to our economic prosperity, and justifies the need for drawing attention to the importance of maintaining our overseas investments.

METHOD OF INQUIRY

The method used is as follows :

The stocks that have been analysed are, as already mentioned, those classified in the Stock Exchange Official Intelligence under the titles of Dominion, Provincial and Colonial Government Securities; Dominion, Indian and Colonial Corporation Stocks; Foreign Corporation Stocks and Foreign Government Stocks.

Figures relating to capital invested overseas on which neither interest nor sinking fund payments were made in 1928 have been excluded.

The London banking agents of Foreign Governments, etc. were asked to give for this analysis :

- (1) The total sinking fund or redemption payment made in the U.K. on each loan for the year 1928.
- (2) The total interest paid in the U.K. on each loan during 1928.
- (3) The proportion of such interest paid tax free.

Information supplied in answer to the last question gave the amounts of interest paid to persons resident in the United Kingdom and to persons resident overseas, since interest is payable tax free to the latter class. The British and the foreign shares in the repayment of capital either by operation of sinking funds or at maturity were taken to be in the same proportion as the interest payments.

It may be noted that this division does not give a strictly accurate apportionment as between British and foreign owners, since the use of the method of division on the basis of tax-free or tax-deducted interest means that foreigners resident here (and in consequence subject to income tax here) are included among the tax-deducted section, while British nationals resident overseas (and exempt from income tax here) are included among the tax-free section. Throughout the remainder of the article the term "British" must be read in this connection.

Where loans were originally issued entirely here and interest and redemptions take place in this country alone, no difficulty in compiling results of our overseas investments and repayments of capital from them occurs. But difficulties become apparent in more complex cases. Among these may be mentioned the case where the loan was originally issued in more than one centre and interest and/or repayment takes place at the option of the

holder in any of these centres. In such cases the method applied this year to determine the British holding has been to take interest paid in London, tax deducted, and from this figure to calculate the British holding. The British and foreign shares of the redemption made in London were again taken to be in the same proportion as the interest payments made in London.

This method appears to be the only one available, although it is open to some errors on special occasions. For example, during the three months October, November, December 1928, the sterling-dollar exchange stood below \$4.85. Holders of many foreign stocks having the option of payment in New York or in London at fixed rates of exchange consequently secured a more profitable payment of their coupons at New York during this period, so that in such circumstances the interest paid in London tax deducted was not representative of the total interest due on holdings of persons resident in the United Kingdom.

In addition, payments made in London include payments on the foreign portions of many international issues, the coupons of which are payable here if desired by their holder. This fact in part accounts for the high percentage, shown later, of tax-free interest payments on foreign Government stocks. A further factor in this connection is that in some cases foreign Governments, although unable, under the terms of their loan contracts, to redeem by drawing a portion of their borrowings at present are known to be buying up for their own account portions of the issue.

For these reasons the figures of British-owned capital and repayments are conservative estimates. A method of overcoming these difficulties in the investigation has been devised, and if it can be perfected it is hoped to use it in the next investigation.

The results I have obtained are summarised in the following tables :

TABLE I

Proportion in 1928 of Interest paid in London tax free and tax deducted on certain classes of Investments.

Nature of Investments.	Tax free, %.	Tax de- ducted, %.
Dominion and Provincial Government Securities .	9.8	90.2
Dominion, Indian and Colonial Corporation Stocks	8.9	91.1
Foreign Corporation Stocks	23.7	76.3
Foreign Government Stocks	45.2	54.8

TABLE II

Amount of Capital invested Overseas owned by residents in the United Kingdom on December 31, 1928, and the Repayments made thereon during 1928.

(£000's.)

Nature of Investments.	Capital owned.	Amount of repayment by Sinking Fund and at Maturity.
Dominion, Provincial and Colonial Government Securities	944,497	4,410
Dominion, Indian and Colonial Corporation Stocks	91,453	860
Foreign Corporation Stocks	40,491	2,029
Foreign Government Stocks	324,008	8,277
	1,400,449	15,576

The figures of repayment exclude all amounts repaid out of refunding operations conducted in this country.

The results shown in Table II may be amplified by analysing the nature of the amount repaid in 1928. This is done in Table III below :

TABLE III

Analysis of Repayments during 1928 to persons resident in the United Kingdom of Capital invested Overseas.

(£000's.)

Nature of Investments.	Maturities.	Optional Redemption.	Sinking Fund Repayments.	Rate of Repayment by Sinking Fund.
Dominion and Provincial Government	525	—	3,885	0.41
Dominion, Indian and Colonial Corporation Stocks	308	—	552	0.60
Foreign Corporation Stocks	—	1,438	591	1.43
Foreign Government Stocks	—	—	8,277	2.55
	833	1,438	13,305	—

These tables, as mentioned earlier, do not include capital where the service is in default, but include the amount of loans issued in 1928.

The figures of overseas capital investment in these tables include our investments in Indian Government Stocks, whereas

in the Stock Exchange Official Intelligence these are grouped under the title of "British Funds."

The income received in the United Kingdom during 1928 is shown by the following table. This income includes interest payments made on loans issued in 1928.

TABLE IV

Income received in the United Kingdom during 1928 from Capital invested Overseas

(£000's.)

Nature of Investments.	Tax deducted.	Tax free.
Dominion, Provincial and Colonial Government Securities	39,770	4,315
Dominion, Indian and Colonial Corporation Stocks	4,050	392
Foreign Corporation Stocks	2,028	630
Foreign Government Stocks	16,048	13,193
	61,896	18,530

Table II brings out clearly the large proportion of this Government class of our investments in the British Colonies and Overseas possessions. Of a total amount of investment outstanding of £1,400,449,000, as much as £1,035,950,000 is in Colonial securities, or 74 per cent. The effect of the Colonial Stock Act of 1900 is thus very evident, and the figures are interesting in the light of present discussions on the direction of our overseas investments.

The extent of repayment indicated at £15,576,000 compares with figures for 1926 and 1927 of £13,953,000 and £24,198,000 respectively. The large amount during 1927 was due to heavy maturity payments in the Colonial Government group—a factor largely absent in 1928, as indicated in Table II.

Table IV must, of course, be read in conjunction with what has already been said regarding the constitution of the tax-free payments made, but even making allowance for those factors it emphasises the fact that foreign nationals do own a considerable portion of loans to foreign countries originally issued here. In respect of Colonial loans (where the foreign portion would be mainly held by Colonials) the proportion is not so high. One factor accounting for this difference is probably that Colonial loans on the whole have not been outstanding so long as loans to foreign Governments. Moreover, foreign nationals have a greater incentive to purchase their Government stocks than Colonials

have to purchase Colonial securities, since the Colonial Stock Act has the effect of reducing the yield on Colonial securities, while no such factor is present in the case of foreign Government bonds.

The rate of interest on the nominal value of our overseas investments in the groups analysed is approximately 4·4 per cent.

It is interesting to analyse as far as possible the geographical distribution of our overseas investments in the groups taken. The following table does this.

TABLE V

Table showing the nominal value of Overseas Investments in the groups analysed, by persons resident in the United Kingdom, in the countries indicated, and the Income derived therefrom during the year 1928.

(£000's.)

Area of Investment.	Capital.	Income.
Europe	113,000	6,050
America (excluding Canada)	149,000	7,014
Asia (excluding India)	93,000	4,677
Australia and New Zealand	521,000	23,744
Canada	102,000	3,872
Africa (including Egypt)	163,000	6,811
India	219,000	8,189
Other Colonies	40,000	1,539
	1,400,000	61,896

N.B.—Egyptian Income and Capital of £335,000 and £9,000,000 respectively included in Table IV under Foreign Government and Corporation Stocks.

It will be seen that the amount of British capital to which this year I have confined my examination, namely, the bonds and stocks of foreign and Colonial Governments and Municipalities, is £1,400 million. The figure obtained by the *Economist* for the amount of loan and share capital invested in British companies operating abroad but registered here is £1,053 million, making a total of £2,453 million for these two classes of investment. It must be remembered that this figure, for which a degree of accuracy may be claimed, covers only a part of the field of British overseas investment. It excludes from consideration :

- (1) The large amount of capital invested by residents here in companies both registered and operating abroad, whether included in the Stock Exchange Official Intelligence or not.
- (2) The sums, which I think are fairly considerable, invested privately either in loans to Governments, etc. entirely

dealt with abroad (*e.g.* investments in recent American foreign loans), or in private companies and ventures whose seat of operation is abroad.

No accurate estimate of these items has been possible, so that, as I have already indicated, they have been omitted pending the possibility of accurate methods of measurement being discovered. Nevertheless, from comparison with my previous experimental but wider investigation, and with the results obtained by the Inland Revenue authorities from their estimates of our overseas capital investment, I consider that the figure of £4,000 million for our total overseas investments is a first approximation to the facts.

In regard to repayment of investments, the sum repaid by sinking or maturity repayments and by redemption of capital in 1928 in the categories covered by my investigation and that of the *Economist* amounted to £22 million. To this, again, would fall to be added the amount due from investments of the type I have indicated as not included.

In 1928 the total of new issues, according to the figures of the Midland Bank, was £143 million, which excludes all refunding issues. Against this the present investigation shows that we had automatically available for new issues at least £22 million received from abroad. We therefore invested in new money abroad a sum in the neighbourhood of £121 million, compared with an amount in 1913 of £253 million at 1928 values. Of course such a comparison takes no account of home savings, but it is safe to say that these also are probably smaller, and that in total therefore we are saving much less than before the war on this basis of estimate.

I wish to express my regret to readers that the information contained in this article does not cover the whole field of our overseas investments. For the reasons given, however, the difficulties are very apparent and will take time to overcome. I am hopeful of devising methods of doing this in certain cases, and if these are perfectible I hope shortly to undertake a much wider investigation of the problem, the results of which I shall hurry forward as much as possible.

R. M. KINDERSLEY

THE FATE OF THE NEW ECONOMIC POLICY OF THE SOVIET UNION ¹

THE fate of the New Economic Policy is being determined by the latest developments in the Soviet Union. It remains a question, however, whether the recent changes in policy mean the indefinite extension of Nep or whether its death-blow has only been postponed. It is difficult to answer this question at the present time, for much depends upon the success of the spring sowing campaign, and still more upon the harvest which is finally reaped.

During the fall of 1929 and the winter following, it seemed inevitable that Nep would come to an early end. The grain collection programme had been completed within the period set, and somewhat more than the planned amount of grain had been collected. This had been possible only by means of an extremely rigorous policy which recalled the policy of requisitioning during the period of military Communism. Any surplus above a minimum which was authoritatively determined had to be turned over to state collection agencies at a fixed price. Yet even if force had been required to collect the planned amount of grain, the fact remained that it had actually been collected, and the critics of the governmental policy were partially silenced. The Right had warned the dominant wing of the Party that only a policy of conciliation toward the *kulaki* and middle peasants would succeed in realising the necessary grain. They had proclaimed that force could not possibly overcome the passive resistance of the *kulaki* and other peasants, who had been charged with holding their grain off the market. The success of the grain collections had shown, nevertheless, that the *kulaki* and other peasants must yield in the face of force without stint.

The success of the grain collections had an unexpected repercussion upon the policy of collectivisation of agriculture. On the

¹ The material upon which this article is based was obtained while the writer was a Fellow of the Social Science Research Council of the United States. It is intended at a later time to present a more complete analysis of the events which are sketched here.

one hand, it had shown the possibilities which lay in the use of relentless pressure. On the other hand, the requisitioning of the surplus grain at a nominal price had convinced the peasant that there was no future for the individual peasant in raising grain for the market. The result was that the collectivisation movement spread like a prairie fire. All the forces of the Party, the Soviet apparatus, the trade unions and the co-operatives were placed behind the policy of the earliest possible socialisation of the land. The programme of the Five Year Plan was completely surpassed and was cast aside. It was announced that the most important grain-producing regions of the Union were, in many cases, to be completely collectivised by the spring of 1930. The steppe country of the Ukraine and the whole Northern Caucasus were to be collectivised within this period. Such a rate of progress had been beyond men's wildest dreams only a year earlier. Even during military Communism the socialisation of the land had proved impossible of attainment. Stalin had proudly characterised the present period not as one of State capitalism, but as a period in which a truly Socialistic order was being constructed. Events seemed to be bearing him out. Never had the prospects of the establishment of a thoroughly Communistic economy and social order seemed so bright.

The *kulaki*, or so-called rich peasants, kept up a bitter fight against the collectivisation of the land and the means of production, and fought the Soviet power in every possible way. Cattle, sheep and hogs were slaughtered in order to avoid turning them over to the *kolkhoz*. The *kulaki* succeeded in getting many other peasants to do likewise, since the carcasses could be sold or eaten, and the peasant was individually so much the better off than if he had turned them over to the *kolkhoz*. The *kulaki* not only killed their cattle, but even killed their horses also, rather than permit them to be taken by the collective farm. It had been intended to operate the collective farms principally by tractor power, but the greatly increased tempo of collectivisation made it inevitable that there would be a deficit in the number of tractors available. The programme of importation of tractors was speeded up and the building of tractor factories was hurried as much as possible. But the valuta balance made it impossible to import nearly enough tractors, and the factories could not possibly get into production early enough to affect the results of the spring sowing. In view of these circumstances the mass killing of horses was a serious menace to Soviet agriculture. The killing of cattle threatened the meat supply for the coming year. Stalin struck

back at the *kulaki* by announcing the policy of the "liquidation of the *kulaki* as a class."¹

The policy of the extermination of the *kulaki* was perhaps the most significant declaration of policy since the introduction of the New Economic Policy. For the first time since the days of the Revolution and the civil war, mass confiscation of property occurred. The land, horses, seed grain, cattle, poultry, houses and furniture of the *kulaki* were confiscated. In the regions which had been declared districts of complete collectivisation the dispossessed *kulaki* were driven from the district in which they had been living. The confiscated property was sold and the proceeds used to pay the entrance fee for the poorer peasants who were entering the collectives. It was thought that this policy would strengthen the class war in the village and still further separate the *kulaki* from the *bedniki*, or poor peasants who were thus benefited.

At the same time as when he had announced the policy of the liquidation of the *kulaki*, Stalin also declared that when Nep had served its purpose it would be "thrown to the devil."² He emphasised the fact that Nep had always been intended merely as a temporary retreat, and that this retreat was to be used as a period of recuperation during which all forces were to be gathered together for the re-establishment of a truly Socialistic order. This declaration was everywhere hailed as the signal for the complete destruction of Nep. The Moscow Committee of the Party declared for the liquidation of the Nepmen along with the *kulaki*. The shops of the Nepmen were closed all over Moscow. By the end of February it was said that not one private clothing shop remained open in all Moscow. Restaurants, hardware shops and practically all private enterprises were closed. Food markets, operated by private merchants were also closed, although they had not completely disappeared by the time the change of policy occurred.

The peasants who had always been accustomed to sell their products on the streets or from door to door almost disappeared. Those who were caught selling their produce in the streets were admonished and sometimes fined. In some instances peasant women who brought milk to the city for sale had their milk confiscated when they attempted to bring it into the city. If they insisted on selling their produce privately they were liable to be

¹ *K voprosam agrarnoi politiki v U. C. C. R.* Speech by Stalin at a conference of agrarian Marxists, December 27, 1929.

² *K voprosam agrarnoi politiki v U. C. C. R., op. cit.*

considered as *kulaki* in their own villages. The streets presented a strange appearance to one who had become accustomed to throngs of peasant pedlars. For the first time since the introduction of the rationing of food the population became almost wholly dependent upon the supply of food obtainable on their ration cards at the governmental and co-operative shops. The plight of those people who were deprived of electoral rights, and consequently of the right to have ration cards, was difficult indeed.

People began to say that the days of military Communism had returned. Indeed, the likeness to the period of war-time Communism was striking. Food was strictly rationed. Many other commodities could be obtained only by means of membership in the consumers' co-operative societies. Workers' brigades scoured the country to aid in dispossessing the *kulaki*, and actively searched the cities for Nepmen who might owe the Government taxes. The success of the military expedition in Manchuria had aroused the military fervour of the country. The Soviet Press carried front-page stories of the imminent danger of war with the capitalistic Powers. The Association for Aviation and Chemical Warfare appealed for new members in the face of the threat of war. The truculent tone of the Commissariat of Foreign Affairs in its answer to the notes of the Powers who had intervened in support of the Pact of Paris increased the warlike atmosphere. The action of the French court in freeing the persons accused of forging Soviet bills of exchange and of the German court in freeing those accused of counterfeiting Soviet money was accepted as evidence of the hostility of the capitalistic governments to the Soviets. The furore created by the disappearance of Kutepov and the agitation about religious persecution added fuel to the flames. During January and February of 1930 hardly anyone in the Soviet Union, native or foreigner, would have been surprised if war had blazed out along the Polish and Rumanian frontiers.

In the midst of this war-time atmosphere the march of events was always in the direction of more thorough-going Communism. Not only did private trade virtually come to an end, but private medical clinics were forbidden, and the approaching end of all private practice in medicine was foreshadowed.¹ In some cities, as, for example, in Ivanovo-Voznessensk, the trade unions passed resolutions against the continuance of private practice in medicine.

¹ See *Pravda* of January 24, 1930, for the resolution of the Commissariat of Health in regard to the liquidation of private clinics. *Izvestia* of February 10 contains a notice of the decision of a group of doctors to refrain from private practice.

The same thing was true of dentistry. Even privately operated barber shops were reconstituted as co-operative *artels*.

During the latter part of December 1929 there had occurred the raids of the political police upon the offices of some of the foreign concessions. Other *concessionaires* were arrested for violation of the labour code and were in some cases sentenced to a year of forced labour. In practice these sentences only meant that the persons convicted were fined a year's salary, yet they indicated a new attitude towards *concessionaires*. The letter of the Chief Concessions Committee in answer to the telegraphic protest of the Lena Goldfields Company against the search carried on in their offices by the G.P.U. showed by its tone that the Soviet Government was determined to take a very strong line in dealing with the operators of concessions.¹

The principle of differentiation in wages and salaries according to the type of work done had been in harmony with the basic principles of Nep. Now there began a movement to destroy the differences in personal incomes which this principle had created. Workmen began to form communes in sections of factories and in entire factories in which all wages and salaries were pooled. In some cases they were then equally divided, regardless of the skill or qualifications of the workers composing the commune, and in other cases the needs of the members of the commune were met out of this common fund. This movement began to spread over the entire country.

During the first two months of 1930 it seemed that complete Communism in its absolute sense was only a step away. One thing at least seemed certain. Those who had said that Nep was to be the permanent economic system of the Soviet Union had been proved wrong. If there had ever been any doubt as to whether the Communist Party considered Nep as their own system with which they were to be permanently content, this doubt was now resolved. The Nepman who perhaps had had visions of the development of a limited form of capitalism in which he could live the usual bourgeois existence was now disillusioned, for the whole race of Nepmen had been all but wiped out of existence.

Then came the great halt in the march to complete Communism. In no other country could such a halt have been successfully made. Only the incredibly perfect discipline of the Party and its absolutely unchallenged control of the country

¹ The reply of the Chief Concessions Committee to the telegram of the Lena Goldfields Company appeared February 11. The telegram of the Lena Goldfields Company had been sent January 13.

made such action possible. As though at a word of command the Press changed its tone. All the forces of the Soviet and Party organisations were thrown behind the new policy. Even after the event it seemed still incredible that such a change of policy could have occurred in such a short space of time. It is true that there had been some signs and portents of the change. In his "Answers to the Sverdlovists," Stalin had indicated that he did not consider that the time was yet ripe to throw Nep entirely to the devil.¹ He declared that those comrades who had declared for the liquidation of the Nepmen were in error. He stated that the liquidation of the *kulaki* was to be carried into effect only as a part of the policy of complete collectivisation. In the face of this statement² the Moscow Committee of the Party recognised its errors and withdrew its resolution.

The article by Stalin entitled "Dizziness from Success" was of such a striking nature, however, that all handwriting on the wall had been too pale to prevent the shock of surprise when it appeared.³ In this article Stalin called attention to the great success of the collectivisation movement. He stated that at that time 50 per cent. of all the peasant households of the Soviet Union had been collectivised. In the exhilaration occasioned by such a sweeping success many serious mistakes had been committed, however. Peasants had been dragooned into joining the *kolkhoz*. In some cases they had been threatened with the armed forces of the Soviet power if they did not join. In other instances peasants had been threatened with deprivation of irrigation water for their farms if they did not enter the local *kolkhoz*. This forced collectivisation must cease, Stalin warned the members of the Party. The comrades who, drunken with success, had cried, "We can do all things," were in the wrong.

Stalin particularly declaimed against the policy which had included the *peredniki* or middle peasants in the process of liquidation. In many cases the property of *peredniki* had been confiscated as well as that of the *kulaki*. *Peredniki* who had refused to enter the *kolkhoz* had, in many cases, been deprived of electoral rights, with all that such deprivation implied. In many cases collectivisation had been purely administrative and the will of the peasants had hardly been considered. All this distortion of the "General Line of the Party" must come to an end.

¹ *Voprosy Sverdlovtsen i otvet tov. Stalina. Za Industrializatsiiu*, February 11, 1930.

² *Izreshchenie ot MK i MKK VKP (b). Ekonomicheskaya Zhizn*, February 14, 1930.

³ *Golovokruzhenie ot uspekhnv. Pravda*, March 2, 1930.

Stalin called attention to the impropriety of trying to compel the peasants to create communes until they had had more experience with collectivisation. In the communes, the houses, gardens, cows and even the poultry and food supplies had been socialised. It was essential that the land, the equipment, the horses and the cattle which were producing milk for the market should be collectivised. This degree of collectivisation was attainable in the *artel*, and this was to be the type of *kolkhoz* which should be encouraged and its growth stimulated rather than the commune. Collectivisation was of importance mainly in the great grain-producing regions, where large-scale methods of cultivation would yield the greatest advantages. Collectivisation was not to be pushed in the more backward regions such as Turkestan, nor in the dairy regions of northern Russia.

This article of Stalin's caused tremendous excitement throughout the country. In some villages the peasants declared that they regarded it as their ancestors had regarded the edict which freed the serfs. Cases were reported where as much as fifteen rubles was paid for a single copy of the newspapers which contained the article. In one case the peasants tore down the newspaper kiosk in their eagerness to get hold of copies of the article, which appeared in all the important newspapers.

The article by Stalin was followed by a decision of the Central Committee of the Party which covered much the same ground, but which was more explicit and went further along the same line.¹ According to the decision of the Party, entrance into the *kolkhoz* was to be purely voluntary. The treatment of *ceredniki* as *kulaki* was to cease at once. Peasants were to be allowed to sell their produce freely in the cities as before. This freedom of trade applied only to such things as eggs, poultry, fruit and vegetables, and was not to apply to the sale of grain. Closing of churches against the will of the people or the closing of churches under cover of petitions whose signatures had been obtained by force was to stop.

The peasantry, and indeed the whole country, received these evidences of a change in policy with feelings which ranged from those of relief to sensations of the wildest delight. On the part of some of the most active workers in the Party who had been carrying out the ultra Left policy which they had considered truly orthodox, the feeling was one of almost hopeless confusion. Where was the Right, and where was the Left, and where could be

¹ *O borbe s iskriveniiami partinii v kolkhoznom dvizhenii. Izvestia*, March 15, 1930.

found the real "General Line of the Party"? were the questions which assailed them. Very quickly, however, the strength of the Party mobilised itself around the newly-defined "General Line," and all efforts were turned towards correcting errors and preparing for the sowing campaign which was so vital to the Soviet Union. In the meantime the question in the minds of all was, "Has the Right won out?" Some thought that now Rykov and Bucharin would return to power. Everyone wondered, too, whether Nep would be re-established. For some time the trend of events was confused. The peasant pedlars appeared again upon the streets as though by magic. The prices which they charged were, however, higher than before their disappearance. On the other hand, the shops of the Nepmen were, in most cases, not reopened. Many of the Nepmen were in Siberia or the Northern concentration camps. Their stocks of goods had been confiscated. The Nepman had received a mortal wound and the change in policy came too late to succour him.

The first tangible result of the article of Stalin and the decision of the Central Committee of the Party was the mass exodus of the peasants from the *kolkhoz*. Exactly what percentage of those who had previously joined the *kolkhoz* now left it, it is impossible to say. At one time it was claimed that 57 per cent. of all peasant households in the Union had been collectivised. In a second article entitled "Answers to the Comrades of the Kolkhoz," Stalin suggested that the figure at which stabilisation for the year might be expected to take place would be about 40 per cent. after allowance had been made for those peasants who had left the collective farms when they had been assured that membership was to be voluntary.¹ But the figure of 40 per cent. was for the grain-producing regions, where the percentage of collectivisation was much larger than for the country as a whole. In some cases, where 90 per cent. of a district had been collectivised, the percentage fell to five. In such cases, of course, the local *kolkhoz* had practically ceased to exist. A little after the appearance of Stalin's second article, *Pravda* estimated that from 30 to 40 per cent. of all peasant households were then collectivised.

Great efforts were made to induce the peasants to return to the collective farms. They were offered remission of certain unpaid fines and dues and were promised exemption from taxation for two years if they would rejoin their *kolkhoz*.² Some of the

¹ *Otvet tovarishcham kolkhoznikom. Pravda*, April 3, 1930.

² *O t'sotakh dlin kolkhozov. Pravda*, April 3, 1930.

peasants were induced to return by these methods. However, the reports from the spring sowing by the individual peasants was so disquieting that it was found necessary to issue instructions for ameliorating the condition of the uncollectivised peasantry, so that one action tended to somewhat counteract the other.¹

By the latter part of April the trend of events began to be apparent. It is true that the Central Executive Committee of the Union issued several decrees which had for their purpose the remedy of the abuses which had grown up in connection with the wholesale deprivation of electoral rights. Likewise every attempt was made to dispel any unfortunate impression which the recent policy towards foreign concessions might have created.² Nevertheless, it became evident that the great series of personal statements by Stalin and of decisions by the Central Committee of the Party and of the Central Executive Committee of the Union represented merely a pause rather than a deviation from the former line of action. Still less could these statements and decisions be considered a reversal of fundamental policy. The word was passed down through the Party ranks and published in the Press, that every care must be taken to prevent the Right from making capital out of the situation. Rumours that Stalin was to retire from his control of the destinies of the Party were proved to be false. Every day it became more evident that Stalin was in complete control of the situation within the Party and that he would be successful in enforcing his interpretation of the "General Line." In answer to the question as to which was the more dangerous at the moment, the Right or the Left, Stalin replied that the Right was the more dangerous. He said that the errors which had been committed by the Left were dangerous mainly because of the possibility which was thus created for the Right to profit by these errors.³ Most significant of all, the policy of the liquidation of the *kulaki* was re-enunciated again and again. Stalin left no doubt in the mind of anyone that he believed in and was committed to the policy of collectivisation of agriculture. The individual peasant was not to be allowed to expect that the system of the individual holding and operation of the land would long continue. Distribution of a special credit fund of half a billion rubles to the collective farms was insisted upon. The tempo of

¹ Decree of Sovnarkom R. S. F. S. R. *Izvestia*, April 11. Decree of Sovnarkom C. C. C. P. and of T. S. J. K. *Za Industrializatsiiu*, April 13, 1930.

² For example, the statements of Mr. Julius Hammer of the liquidated Hammer Concession, and of some of the technical personnel of the liquidated Altman Concession. *Za Industrializatsiiu*, February 28, and *Izvestia*, March 1, 1930.

³ *Otvet tovarushcham kolkhoznikom*. *Pravda*, April 3, 1930.

industrialisation was still further increased by the appropriation of still larger sums for capital investment in industry.¹

At the present time the main features of Nep have already disappeared and the signs of any reappearance are very scarce indeed. In the normal course of events, private trade was being strangled by the competition of state and co-operative institutions. The events of January and February of 1930 simply hastened the destruction of Nep. In the last analysis the future of Nep may depend upon the coming harvest. If the harvest should be a failure it is barely possible that Nep, or some policy similar to it, might be re-established. If the harvest is a mediocre one, the disappearance of Nep will be postponed for a little while. If the harvest is good, the last remnants of Nep will speedily disappear. Finally, it may be said that the determination of the Party to create a social and economic order which will be purely Socialistic and which will constitute an entirely different civilisation from that of Capitalism can no longer be doubted.

CALVIN B. HOOVER

¹ The increase amounted to 339,690,000 rubles. This increase was provided for by a decree of Sovnarkom published in *Pravda* of April 3, 1930.

ON A CERTAIN AMBIGUITY IN THE CONCEPTION OF STATIONARY EQUILIBRIUM

I

THE idea of an equilibrium of forces is one which is common to many sciences, but there are few in which it plays a more important part than in theoretical economics. It has been implicit in our discussions since the time of the Physiocrats,¹ and as the methods of economics have become more and more self-conscious it has become, in one shape or other, one of the main instruments of theoretical analysis. We describe the various forces we have to study by reference to their place in our conception of equilibrium. We measure their variations by reference to equilibrating norms. It is not too much to say that in so far as we pretend to enunciate economic laws at all it is the assumption that, within some limits, an equilibrium of some sort is conceivable that is the justification of our procedure.

Now, of course, many conceptions of equilibrium are possible, from the simple notion of a balance between the supply of and demand for one commodity to the sublime conceptions of the mathematical economists, in which all the quantities contemplated move together in orderly change. But hitherto the dominating conception has been one midway between these extremes. We abstract from various causes of change, and conceive the remaining economic quantities as stationary, and inquire as to their mutual relations. Or, we ask what will be the relation of certain given quantities when certain tendencies to change have come to rest. The stationary state and static laws have been the main subject of investigation.

Whatever the imperfections of this method, it cannot be denied that by its aid, in the past, much has been done which does, in some way or other, elucidate the working of economic forces. The man who holds that nothing has yet been accomplished may deserve pity but certainly not respect. Nevertheless,

¹ See Schumpeter, *Epochen der Methoden- und Dogmengeschichte*, pp. 45-48, for a very interesting discussion of the Physiocratic contribution viewed in this aspect.

at the present day, it would be idle to pretend that, even within this limited sphere, entire finality has been reached. There are still important differences of opinion among economists, both as regards the form and the significance of static analysis. Some of these differences relate to matters of actual *logic*—it is probable that the dispute with regard to consumers' surplus is a difference of this order. But some arise much more because of certain initial differences of *assumption* which are not always clearly realised. The logic is thought to be faulty because the premises are not clearly stated. It is the contention of this paper that the conception of stationary equilibrium, as used in modern "literary economics," itself involves an ambiguity as regards its ultimate assumptions. It is contended further that this ambiguity is responsible for some of the most important doctrinal confusions of the past, and that even at the present day it has led, in at least one instance, to analysis which is definitely erroneous. The nature of the ambiguity is simple. It can be stated in a couple of sentences. But its full significance cannot be grasped until we have traced its origin in the classical system and followed up some of the confusions which arise from its existence. An historical method of approach will therefore be utilised.¹ The history, however, makes no pretension to exhaustiveness. It is used solely in order to elucidate positive analysis.

II

1. The idea of a stationary state is clearly implicit in the *Tableau Economique* of Quesnay and the Physiocrats.² The underlying notion of that complicated arithmetical diagram is one of a state of affairs in the body economic in which production and consumption are in a condition of perfect

¹ The argument of this paper was first developed in lectures on the history of theory which I delivered at New College in the winter 1928-29. At that time I thought that the contrast which I drew between static states according to suppositions concerning the supply schedules of the factors of production, although, of course, obvious to anyone familiar with mathematical economics, had not been made by any "literary economist." Since then, however, I have discovered a footnote in Professor Knight's *Risk, Uncertainty and Profit* (p. 143) in which this is done, and, as I had read that admirable work many times, I suppose I must have been unconsciously influenced by Professor Knight's comment. Professor Knight's note is, however, very brief, and I therefore venture to hope that my historical exegesis and contemporary applications may not be altogether otiose.

² On the significance of the *Tableau Economique*, see Oncken, *Geschichte der Nationalökonomie* (pp. 386-402); also Cannan, *A Review of Economic Theory* (pp. 25-34).

balance. Year in, year out the same processes recur, the same circulation of goods takes place through the same channels. But the use made of this conception is different from the use which has been most customary since that day. Modern economists use the stationary state to exhibit the nature of certain *tendencies*, to show under what conditions certain kinds of change may be expected to cease. Quesnay used it rather as a model of certain *processes* and a demonstration of the conditions under which these processes could be said to be functioning healthily. It is obvious from the variants of the table given by Mirabeau that its main use was conceived to be that of a formulation of the minimum conditions of civic well-being, rather than a hypothetical construction whereby purely causal phenomena could be studied. It was hoped that actual statistics would be collected of the quantities exhibited in the table; and then, by a comparison of their mutual relationships with the ideal relationships of the table, a diagnosis could be made of the prosperity of the area of collection. It would therefore be unwise to attribute very great importance to the Physiocratic contribution to the analysis of equilibrium.

2. So far as I am able to discover, the first use of the conception in its more familiar form, and the first mention of the actual term, the stationary state, occur in the course of the celebrated chapter on wages in the *Wealth of Nations*.¹

Adam Smith, it will be remembered, commences his treatment of wages in an "advanced society" by laying down what may be called a buyer's monopoly theory of subsistence wages. The unfortunate worker, who, in "that original state of things which precedes both the appropriation of land and the accumulation of stock," secured the whole produce of labour, now finds himself compelled to bargain with the employers for a share of it. In the face of their tacit combination he is helpless. His wages, therefore, are forced down to subsistence level—a wage, that is to say, which will keep him alive and enable him to bring up a family of just such a size as, allowing for the average expectation of life among the children of the working classes, will keep the population constant.

But, no sooner has Smith elaborated this theory, than he at once commences to replace it by another. His strong sense of reality compels him to admit that wages do not behave as such generalisations would lead one to suppose. (In a buyer's monopoly theory of subsistence wages there is, of course, no question of a

¹ Cannan's Ed., Vol. I. pp. 66–88.

tendency which may be concealed by countervailing tendencies. *So long as the monopoly is operative it can act at once.*) He therefore proceeds to elaborate a new theory, a theory in which, when subsistence wages emerge at all, their emergence is due as much to forces acting on the supply side as to buyers' combinations on the side of demand. On the demand side, this theory anticipates the wage fund theory; on the supply side, the population theory of the first edition of Malthus' *Essay on Population*. And it is in the course of the development of this theory that the conception which is to be analysed in this paper first emerges.

According to this new version of the theory of wages, the demand for labour is conceived to come from certain funds which in some somewhat mysterious fashion have been "destined for the maintenance of labour." When these funds are increasing faster than the increase of labour, the tacit combination of masters breaks up. "The scarcity of hands occasions a competition among masters, who bid against one another in order to get workmen, and thus voluntarily break through the natural combination of masters not to raise wages." In these circumstances, wages rise above subsistence level. This, Smith thought, was what was happening in the England of his own day and also in North America. But if for any reason these funds cease to increase, if, to use the jargon of a later day, the wage-fund becomes stationary, then wages tend to fall. The wretched labourers multiply, and their share per head of this constant fund is reduced until it reaches that level which is sufficient to maintain the labourer and enable him to support a family of the size necessary to keep population constant. This, he thought, was what had happened in China, whose condition, he said, had "long been stationary." Finally, if the fund actually diminished, as, he thought, was happening in Bengal, then wages fall until "want, famine and mortality" have so reduced the number of labourers as once more to make a subsistence wage possible. Wages therefore form, as it were, an index showing whether the state is advancing, stationary or retrogressive. "It is in the progressive state, while the society is advancing to further acquisition, that the condition of the labouring poor seems to be the happiest and most comfortable. It is hard in the stationary and miserable in the declining state. The progressive state is in reality the cheerful and the hearty state for all the different orders of the society. The stationary is dull; the declining melancholy."

3. This then is the stationary state as it first appears in economic theory. Population is constant, capital is constant,

wages are constant and profits are constant.¹ There is life, in that, year in year out, the same things are repeated. But the fundamental conditions of economic activity remain unchanged.

But why is it stationary?

We have to reconstruct the answer from different parts of Smith's analysis. Population is stationary because the funds destined for the maintenance of labour have ceased to increase and wages are down to subsistence level. The funds destined for the maintenance of labour are stationary because the rate of profit has fallen so low that there is no further incentive to accumulate. How low this is, is difficult to say. Smith admits that the level will vary with the current risk of investment. In China he thinks, because of bad government, accumulation has ceased at 12 per cent. But no other possibility of variation is mentioned. There is no suggestion that there are different static rates in different states of society. Risk is the only cause of variation. Compensation for risk apart, the rate "must always be something more than what is sufficient to compensate the occasional losses to which every employment of stock is exposed. . . . Were it not more, charity or friendship could be the only motive for lending."² And it is suggested that where great risk is absent (as in Holland) the rate is so low that only the very wealthiest can live on interest.

4. Superficially, the stationary state which we encounter in Ricardo is much the same sort of conception.³ Wages are at their "natural level," dictated by the cost of producing labour. Population is constant. Capital is accumulated to such a point that, the rate of profit having fallen to the minimum necessary to induce accumulation, no further saving is being made. And Ricardo equally with Smith regards the prospect of arriving in this condition with feelings of considerable repugnance:—"If we should attain the stationary state, from which I trust we are far distant." . . .

But, in fact, if we are willing to dig a little beneath the surface, we find a considerable difference. The structure is more complicated, the possibilities of variation more numerous. In the Smithian conception, the rate of profit is the only supply-price

¹ Presumably technical knowledge has ceased to grow. This, however, is an assumption which was not elucidated until much later. It is not until we came to Marshall and Clark that the technical presuppositions of Static analysis are thoroughly and clearly stated.

² *Op. cit.*, pp. 97-98.

³ See e.g. *Works* (Ed. McCulloch), pp. 59, 104, 120. There is an interesting passage in the *Letters to Malthus*, p. 188, in which the distinction between stationariness and stagnation is discussed.

which admits of any variation. And as we have seen, what variation there is here derives entirely from variations in the risk of investment. So far as wages are concerned the ultimate figure is more or less *objectively* determinate. It is a *physiological* subsistence level—the lowest wage which will keep the labourer alive and enable him to bring up a family. No doubt it will vary according to climate and the death-rate. But there is no suggestion that it may vary with varying *psychological* dispositions.

But by the time Ricardo came to write his *Principles*, crudities of that sort were becoming a thing of the past so far as the inner circle of classical economists was concerned. The second edition of Malthus' *Essay on Population* had made it plain that, if people wished, population could be kept within limits other than the limit of physiological subsistence. And the researches of Torrens¹ had shown that in fact the "conventional subsistence" wage varied greatly from country to country. And therefore, although in one or two parts of his work there is a harking-back to the idea of physiological subsistence wages,² in the main chapter on wages, Ricardo makes it clear that for him the "natural wage" is not so much a wage which *enables* the labourer to subsist and bring up the conventional family, as a wage which *induces* him to do so. It is not a physiological so much as a psychological variable. He is clear that it varies from place to place and from time to time. And he hopes that by wise legislation this natural supply price of labour shall be pushed continually upwards. "The friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertion to procure them."³

All this means, of course, that at least one of the supply prices, the supply price of labour, is now recognised to be dependent on states of mind. Whatever the rigidity of the "natural" rate of profit, it is clear that in the Ricardian conception stationariness is conceivable at various "natural" levels of wages. There may be stationary equilibrium with a (relatively) large population and a low "natural" rate of wages. Or if the friends of humanity have had their way, it is possible that there may be stationary equilibrium with a (relatively) small population, and a high "natural" level of wages. It means, therefore—although Ricardo did not recognise this—that the stationary state is robbed of many

¹ *Essay on the External Corn Trade*, p. 68.

² In the chapter on Gross and Net Revenue, for instance.

³ *Principles* (MacCulloch's Ed.), p. 55.

of its terrors. According to the Smithian conception, the stationary state must be "dull"—to put it mildly. But according to Ricardo, as J. S. Mill pointed out in a celebrated passage, it need not be dull at all.¹ It may all be very pleasant and cultivated.

5. In Mill's work we get still further refinements. With Smith and Ricardo, as we have seen, if we exclude variations due to variations of risk, the supply price of capital is treated as more or less invariable. Mill does not explicitly introduce any refinement of this conception when he is dealing specifically with the stationary state, but, in the chapter on the increase of capital, it is quite clear that he has learned from John Rea² the notion of a natural rate of profit which varies according to what Fisher would call the prevalent conditions of time preference, and what Rea called the effective desire of accumulation. Hence there is now the possibility of an infinite diversity of stationary equilibria with natural wages and profits at different levels.

6. All these tendencies to improvement reach what for our purpose we may regard as a culminating point in the work of Marshall. As is well known, Marshall had a certain aversion to the concept. Partly, I think, because of his temperamental dislike of all extreme abstractions, partly because of a not very clearly formulated distrust of certain apparently similar conceptions which were being elaborated on the other side of the Atlantic. "I cannot conceive," he wrote to J. B. Clark, "of a static state which resembles the real world closely enough to form a subject of profitable study. . . . I could no more write one book about the statical state and another about the dynamical state than I could write one book about a yacht moving three miles an hour through the water which was running against it and another about a yacht moving through still water at five miles an hour."³ Instead he preferred the "less violent assumptions" of what he said was "not quite accurately called the statical method," by which "we fix our minds on some central point; we suppose it for the time being to be reduced to a *stationary* state; and we then study in relation to it the forces that affect the things by which it is surrounded and any tendency there may be to equilibrium of these forces."⁴

¹ *Principles of Economics* (Ashley's Ed.), pp. 248-75.

² *New Principles of Political Economy* (1834).

³ *Memorials*, p. 415.

⁴ *Principles* 5th ed., p. 369. For an interesting discussion of the contrast between Marshall's "statical method" and Clark's "static analysis" see Opie, *Die Lehre von Quasirent und die Marshall'schen Lehrsätze*, *Archiv für Socialwissenschaft*, Bd. 60, pp. 251-79. I suspect Mr. Opie of the opinion that the

Nevertheless, from time to time a stationary state does make its appearance in the *Principles*.¹ It is employed (very tentatively, it is true) to demonstrate the relationship (or perhaps the absence of a relationship) between real costs and expenses of production. It appears again in certain versions of the preliminary view of distribution, and I should be prepared to argue, in spite of Marshall himself, that it underlies much of what there is of validity in the results achieved by the "statical method." It is no doubt in one sense a much more attenuated instrument than the original conception. Smith thought the stationary state might actually arrive, that it had, in fact, appeared in China and other places. Marshall is quite clear that the stationary state is a fiction, an analytical instrument simply.² But the basic conception is there, and that, of course, in a form whose effectiveness is vastly enhanced by all Marshall's own analytical improvements. There is no longer any doubt as to the variability of the various supply functions. There is no longer any question of causal pre-eminence for any one factor in the total equilibrium. It is the stationary state of the classics lifted on to a new plane of scientific precision.

III

1. Meanwhile, there was being developed, on the other side of the Atlantic, a method of analysis apparently similar to the one whose history we have been following, but, in fact, in important

aversion from heroic abstraction was a virtue in Marshall in that it made his constructions more realistic. Personally I should be inclined to urge that in certain connections (Increasing Returns, *e.g.*) it was responsible for a good deal of theoretical confusion. This is not to say that Clark's static state is superior to Marshall's statical method, but rather that, as suggested above, the stationary state itself is superior to the more limited conceptions.

¹ To trace the shadowy appearances, disappearances and reappearances of this "famous fiction" in the various editions would demand a paper in itself, and I suspect it would be well worth doing. We shall never understand the real significance of the Marshallian system until a *variorum* edition of the *Principles* is published. The main sections in which it is used relate to the connection between real costs and expenses of production (*e.g.* 3rd ed., p. 425, and Appendix H, para. 4, 6th ed., p. 810), and to the conception of normal price and the Representative Firm (*e.g.* 6th ed., p. 366 seq.). It appears also in earlier editions of the *Preliminary View of Distribution* at the commencement of Book VI.

Appendix H on the *Limitations of the use of statical assumption in regard to increasing returns* is very important as an indication of Marshall's attitude with regard to equilibrium analysis in general, and shows clearly, I think, the nature of the step which has to be taken if the various disputes now current with regard to the laws of returns are ever to be satisfactorily settled. I hope to return to this in another paper.

² I am indebted to my friend, Mr. A. W. Stonier of Christ Church for some very valuable comments on this aspect of Marshall's system.

respects substantially different. To these developments we must now turn.

The innovation derives from Mill. We have seen already that in his chapter on the stationary state Mill uses a conception not radically dissimilar from that of his predecessors. So too in other passages. But there is one passage which bears a different interpretation. It occurs at the commencement of the section on the influence of Progress.¹ Mill is reviewing the earlier sections on production, distribution and value, and making plans, as it were, for future developments.

"The three preceding parts," he says, "include as detailed a view as our limits permit, of what, by a happy generalisation of a mathematical phrase, has been called the statics of the subject. We have surveyed the field of economic facts, and have examined how they stand related to one another as causes and effects: what circumstances determine the amount of production, of employment for labour, of capital and population: what laws regulate rent, profits and wages. . . . We have thus obtained a collective view of the economic phenomena of society, considered as existing simultaneously. We have ascertained, to a certain extent, the principles of their interdependence, and when the state of some of the elements is known, we should now be in a position to infer in a general way the contemporaneous state of most of the others. All this, however, has only put us in possession of the . . . laws of a stationary and unchanging society. We have still to consider the economical condition of mankind as liable to change. . . . We have to consider what these changes are: what are their laws and what their ultimate tendencies: thereby adding a theory of motion to our theory of equilibrium . . . the dynamics of political economy to the statics."

Now it is probable that, in writing this passage, Mill had nothing more in mind than the existing notion of the stationary state, and the difference between the phenomena of such a state and the phenomena of a society which is still advancing. That at any rate is what seems to emerge from a study of the actual content of the subsequent chapters of the section.

But it is clear that, taken apart from its general context, it is capable of another interpretation. Taken as it stands, it seems to say, "We have studied what happens when the factors of production are constant. Now we must proceed to ask what causes their numbers to change." That at least is suggested by the

¹ Ashley's Ed., p. 695.

passage, "we have still to consider the condition of mankind as liable to change . . . we have to consider what these changes are and what are their laws." In fact, as stated earlier in the passage, the laws of change in the numbers of the population and the quantity of accumulated capital were considered in the first part of the book. But it is easy to see how reading this passage, and being impressed perhaps by the verbal distinction, one might come to divide the statics and dynamics of the subject on this plan. The statics should deal with what happens when the factors are given. The dynamics, with the laws of change in the quantity of the factors.

2. Whether this interpretation of Mill's influence be true or not, it was the plan actually followed by J. B. Clark in his celebrated classification of static and dynamic phenomena in the opening chapters of *The Distribution of Wealth*. And it is usually held that, in the matter of terminology at least, Clark's debt to Mill is obvious.

Clark reaches his conception of what he calls a static state by abstracting the forces of social progress. "In any given society," he says,¹ "five generic changes are going on, every one of which reacts on the structure of society by changing the arrangements of that group system which it is the work of catallactics to study.

1. Population is increasing.
2. Capital is increasing.
3. Methods of production are improving.
4. The forms of industrial establishments are changing.
5. The wants of consumers are multiplying."

These influences he thinks are to be called dynamic. A world from which they were absent would be a static state.

To study this state, therefore, we must consider changes of this sort absent. "We must in imagination sweep remorselessly from the field the whole set of influences that we have called dynamic. We shall . . . stop . . . every one of the five organic changes that are actually moving and relocating the economic agents. . . . Population and capital are treated as neither increasing nor diminishing . . . inventions are not made, and processes of production do not change."²

3. Now at first sight a static state of this sort would appear to be exactly similar to the stationary state we find in the classics and in Marshall. And there can be no doubt that Clark thought

¹ *Distribution of Wealth*, p. 56.

² *Op. cit.*, p. 71 seq.

it to be similar. "The term natural," he says,¹ "as used by classical economists in connection with standards of wages and interest, was unconsciously employed as an equivalent of the term static. . . ." And again,² "What the Ricardian theory unconsciously and imperfectly accomplished was the separation of static from dynamic forces. It was really studying a static world, but it studied that world with no complete idea of its nature. There was not in the mind of any of these early writers any connection of the two distinct sets of forces that are really acting together; and there could therefore be no systematic plan for studying them separately. In reality their 'natural prices' were static prices. They were those to which an actual market would conform if dynamic influences were wholly to cease. . . . Stop all increase of population and wealth . . . but let industry go on and perfect competition continue, and you bring the world into a state in which the standard theoretical prices will be the real ones."

But, plausible as this identification may appear at first sight, it is, I believe, completely mistaken. It is perfectly true that in both the Clarkian and the classical construction the quantities of the factors of production are constant. *But--* and this is the fundamental difference which it is desired here to exhibit-- *in the one, this constancy is the condition of equilibrium; in the other, it is simply one of the resultants of the equilibrating process.* In the Clarkian state, population and capital are to be constant--they are *not allowed* to vary. In the classical constructions, population and capital are constant, but this is because, together with wages and interest, etc., they have reached a position of rest. You can no more say of such a construction that wages and interest are constant because population and capital are constant, than you can say that population and capital are constant because wages and interest are constant. All that you can say is that, owing to absence of change of consumers' demand and knowledge of the technique of production on the one hand, or fundamental change in the human or material equipment of production on the other,³ a position of rest has been reached. The Marshallian analogy of the balls in the bowl was designed expressly to elucidate this conception.

¹ *Distribution of Wealth*, p. vi.

² *Ibid.*, p. 69.

³ This rather awkward wording has been chosen in order to make it clear that anything like exhaustion of mineral resources must be excluded from the strict conception of stationary equilibrium. I am not sure that it is always fully realised that this is the case. A conception of equilibrium that is to be fully realistic *must* be a conception of moving equilibrium. But this does not make the remoter construction any less convenient as a first approximation.

There is one passage in the *Distribution of Wealth* in which Clark appears to contemplate this hypothesis. In this passage¹ he allows that "the fixed condition" of capital, assumed in static analysis, "cannot exist . . . unless the motive for saving something from incomes is not equal to the motive for spending it. In the static state there is no abstinence, or creation of new capital, because, with the capital now on hand, men would lose more by foregoing pleasure and making their fund larger than they would gain by doing so." This passage is important. It shows that on essentials there is no difference of opinion as to facts—that is to say, tendencies operative in the real world—between the Clarkian and the neo-classical tradition. But it cannot be held to vitiate the interpretation which has just been given of the general Clarkian conception of static laws and static conditions. For in his very next sentence Clark goes on to say that "the whole subject of creating capital belongs to the dynamic division of the science of economics." Now it should be abundantly clear that if as a matter of hypothesis you stop tendencies to change *other than those assumed to be implicit in the form of the supply and demand functions*, then capital creation and population may go on for some time before stationary conditions in the classical sense are ultimately attained. At any given time, if you stop the creation of capital and the increase of population (demand being assumed constant), then static equilibrium in the Clarkian sense is only so far distant as economic friction delays it. But if you merely stop ultimate changes of taste and technique, then, if the effective desire of accumulation is of a certain order, capital increase (to say nothing of the increase of population²) may go on for an almost infinitely long period.

Moreover, the whole treatment of the rest of the book is at variance with this particular passage. Again and again we are told that we must stop in imagination the growth of population and the increase of capital if we are to be in a position to examine the working of static laws. But, of course, if you assume stationary conditions as Marshall and the classics assumed them, this degree of hypothetical violence is unnecessary. All that is necessary is that technique and demand of all kinds (including demand for income in terms of effort and abstinence) shall remain unchanged, and, if exhaustible natural resources are not employed, the

¹ *Op. cit.*, p. 136.

² In the classical and Marshallian constructions there is supposed to be a functional connection between wages and the production of labourers. It is a matter for dispute how far such a supposition is justifiable.

stationariness desired will then arrive as part of the general equilibrium. This is perfectly clear from the Marshallian treatment. It is no less implied by the constructions of his predecessors. It was the absence of improvements which characterised the stationary state of Ricardo.¹

Finally, in this connection, we may appeal to Clark's own criterion of static conditions. "The absence of any flow of labour or of capital from one group to another is the sure outward sign," he says, "of the static condition."² Is not this insistence on what may be called horizontal adjustment according to demand for different commodities, rather than on such adjustment *combined* with what may be called vertical adjustment according to demand for income from work and abstinence, proof sufficient of the contention here urged? It is impossible to conceive that one who held consistently the view that a stationary state of population was a result rather than a pre-established condition of the stationary equilibrium he was contemplating would have failed to mention it at this juncture. Of course it could be argued that stationariness at any one point implies stationariness at any other, so that stationariness between groups is as good an index of stationary equilibrium in its fullest sense as stationariness in the total quantities of factors of production *and* stationariness between groups. And up to a point that argument might be sustained. But it can scarcely be adduced in the interpretation of one who has insisted that, in order to study static conditions, we must keep constant the supply of factors, and watch the resulting equilibrium.³

IV

1. If this analysis of the position be correct, then we must recognise not one general class of "static states" and "static laws," but two: the classical conception in which the condition of stationariness is the resultant of the balancing of forces tending to change, and the Clarkian in which the factors of production are stationary by hypothesis, and equilibrium is attained within these

¹ Mill in an incautious moment suggested that improvements might continue in a stationary state. Of course if stationary state is used to designate merely a community where population has ceased to grow, this is true. But if it is used in the technical sense we are discussing it is highly improbable. It would be an odd series of inventions which had no influence on the supply of savings.

² *Op. cit.*, p. 400.

³ It could be argued further that unless the interpretation of Clark given above is correct, Clark's static laws of wages, etc. are wrong. If supply is not fixed it is false to say that wages are *determined* by marginal productivity. But on all this see below.

conditions. Both rule out inventions and fundamental changes in nature and human beings. But the one admits the possibility of variations of labour and capital, the other excludes these by definition. In an ultimate classification of course the Clarkian conception can be regarded as a limiting case of the wider concept—the supply curves of capital and labour exhibiting absolute inelasticity. But it is clear that this is not how it is conceived by its inventor.

Now in a matter of abstractions of this sort there is no question of rightness or wrongness. If Clark chooses to assume that labour and capital do not increase, and if he calls the description of what happens under such circumstances, static analysis, we cannot gainsay him. In judging such constructions we do not ask whether they are *right or wrong*—that is a question which is only relevant to the logic of the subsequent inferences: we ask only whether they are *appropriate*.

In fact, of course, each construction is appropriate for particular stages of analysis. It is convenient for some purposes to suppose that the supplies of the ultimate factors are given. For other purposes it is more convenient to assume that they have a certain flexibility. If we wish to study the short period effects of a change in technique, *e.g.*, the Clarkian hypothesis is sufficient. If we wish to take account of the subtler but more far-reaching effects over time, we do well to have recourse to the wider conception. The modern economist with even the most fleeting acquaintance with the mathematical theory of equilibrium, will recognise in the two constructions we have been examining, *not competing abstractions, but successive stages of exposition*.

None the less it is fundamentally important that they should be kept apart, that the difference should be clearly shown and its implications fully realised. We have seen already, in discussing the significance of the two hypotheses as regards the distance in time from the ultimate equilibrium of any given disequilibrium, how vast this difference may be. We see it still more vividly if we survey a few of the more prominent controversies of modern times in which the distinction has not been clearly recognised. It is arguable, I think, that most of the more respectable disputes of the past hundred years have arisen just because of a failure on the part of the disputants to define clearly their ultimate assumptions with regard to the conditions of equilibrium.

2. We may take as our first example the celebrated disputes of the 'nineties and the first ten years of this century concerning the ultimate nature of real costs. Are the forces limiting the

supply of particular commodities to be regarded as being of the same order as the forces limiting demand? Or are we to admit elements of real costs which are not of this nature? Are all costs ultimately resolvable into foregone products, or are labour-pain and abstinence to be regarded as ultimate? Here there was a battle of the giants: on the one side Marshall and Edgeworth, on the other the great Austrians, together with Wicksteed and some of the Americans.¹

Now I am far from arguing that there was nothing but misunderstanding in this controversy. No doubt it did bring to light fundamental difficulties in the old doctrine of real costs, and pave the way for the now almost universal recognition that even when disutilities are taken into account they are ultimately to be regarded as being the pull of foregone leisure or foregone present income—opportunity costs rather than disutilities in the sense of the old hedonistic calculus.² But, surveyed from the calm distance of a quarter of a century, it is abundantly clear that the main difference of opinion arose not so much from a difference of opinion as to the totality of forces operative in the economic system, but from a failure on the part of the participants to perceive that each was adopting a different assumption with regard to the conditions of equilibrium. As we have seen, Marshall did not greatly favour the use of the Clarkian terminology, and the great Austrians Wieser and Böhm-Bawerk were writing before it had been made known by Schumpeter to continental circles. But close examination of their respective work reveals precisely the difference of assumption we have been examining. Marshall and Edgeworth were assuming the fluidity of supply of capital and labour which was characteristic of the classical conception of equilibrium. Böhm-Bawerk and Wieser were assuming the fixity of supply which is the assumption of the Clarkian statics. Granted this initial difference of assumption, the conclusions were bound to be different. If

¹ See, e.g., Edgeworth's review of Böhm-Bawerk's *Positive Theory of Capital* (Papers relating to Political Economy, III); Böhm-Bawerk, *Der Letzte Massstab des Güterwertes*, Gesammelte Schriften, pp. 404-70; D. I. Green, *Pain Cost and Opportunity Cost* (Q.J.E. Vol. VIII p. 218); Davenport, *Value and Distribution*; Wicksteed, *Commonsense of Political Economy*, Chapter IX.

² Mr. Henderson's *Supply and Demand* may be regarded as indicating the definite abandonment of the old absolute conception of real costs. Professor Pigou's treatment of the Real Costs of War (*Political Economy of War*, Chapter III) also follows the Austrian conception. But Mr. Henderson does not show very clearly how, if the supply of capital and labour are to be taken as variable, the resistances are to be worked into the opportunity cost concept. This, I think, has been more satisfactorily worked out by Professor Knight. (*Risk, Uncertainty and Profit*, Chapter III.)

the supply of factors is fixed, "disutility," whether conceived in the terms of old-fashioned hedonism or in the more modern sense of displaced resistances, is simply a matter of foregone *products*. If, however, flexible supplies are contemplated, clearly it has a wider significance. We tend to regard it as foregone leisure in the case of work, foregone income in the present in the case of the use of capital, whereas Marshall and Edgeworth were still thinking in terms of something more absolute; but the contrast with the narrower hypothesis is the same. Eventually this came to light,¹ but not before much ink had been wasted.

3. Secondly, we may take certain disputes concerning the theory of wages. Clark, as is well known, asserted that in a state of pure competition, wages are *determined* by final productivity. Others, recollecting the variability of labour supply, have insisted that, since until the form of the supply function is known one cannot tell what productivity is to be regarded as final, this cannot be admitted. Wages measure or express final productivity, but the process of determination is multiple. Of course these objections are fully justified in so far as the Clarkian theory pretends to be a complete explanation of wage determination. But in so far as Clark is merely asserting what would happen in his static state they miss the point. In the Clarkian state the supply of labour is given. There is no need to elaborate this point at length, as it is well known. Carver dealt with this limitation of the productivity theory at a very early stage,² and Mr. Dobb has a very elegant discussion of the same matter in his recent work on *Wages*.³

4. Thirdly, we may take the age-long controversies concerning rent and cost. In what sense, if any, is it true to say that rent does not enter into cost of production? Here, too, we have a case in which much of the controversy of recent years is seen to depend on the last analysis upon differences of hypothetical construction rather than differences of actual logic.⁴

If we are considering a state of equilibrium in which the total supplies of the factors of production are fixed by hypothesis—

¹ See Edgeworth, "Böhm-Bawerk on the Ultimate Standard of Value" (*Papers relating to Political Economy*, III. pp. 59-64).

² Carver *Distribution of Wealth*, pp. 134-184.

³ Dobb, *Wages* (Chapters IV and V).

⁴ Of course this is not the whole story. It would be hard to contend that all who have supported the proposition have been alive to the consideration regarding the reversibility of the rent analysis adduced by Clark and Wicksteed, or that all who have opposed it have understood the implications of the idea of the intensive margin. But we are dealing here with the differences of opinion of really capable economists!

the Clarkian static state—then clearly rent has the same relation to price as any other income. It is true that if we go to the rentless margin we can say that rent does not “enter into” cost there. But it is equally true that if we go to the wageless margin we can say that wages do not “enter into” cost there. But this is a mere tautology, and, of course, proves nothing. In the conditions here contemplated, costs are obviously the outlays which have to be made in order to secure the use of the factors of production for the production of this commodity rather than for the production of that. Neither from the point of view of the entrepreneur, nor from the point of view of society, is there any reason to regard payment for “land,” in the Ricardian sense, as being on a footing different from the payment for other agents.

And, so far as the point of view of the entrepreneur is concerned, this is still true when we turn to contemplate the phenomena of a stationary equilibrium, in which the supplies of the technically variable agents are free to vary—the stationary state of the classics. It was Marshall himself who insisted that “land is but a particular form of capital from the point of view of the individual producer. The question whether a farmer has carried his cultivation of a particular piece of land as far as he profitably can, and whether he should try to force more from it or to take in another piece of land, is of the same kind as the question whether he should buy a new plough or try to get a little more work out of his present stock of ploughs. . . .”¹ But from the point of view of society there is this difference between the payments made for the use of Ricardian “land” and agents in fixed supply in general, and payments for the use of factors in flexible supply, that we must assume that, if prices were different, the supplies of the flexible factors would be different; but we need not make any such assumptions about the supply of the fixed factors. By definition their supply would be unaltered. It is still undesirable to say that rent does not form part of cost. But in the sense in which cost is to be interpreted as the price of keeping supply constant, there is significance of a sort in the Ricardian proposition that rent does not “enter into” this conception. “Rent in the Ricardian sense is still a transfer expense. Other costs are stationary supply prices. It was clearly recognition of this which led Marshall to remark that “it is *wisest not* to say that rent does not enter into cost of production, for that will confuse many people. But it is *wicked* to say that rent does enter into cost of production, because that is *sure* to be applied in such

¹ *Principles* (8th ed.), p. 430.

a way as to lead to the denial of subtle truths which, in spite of their being subtle, are of the very highest importance scientifically, and also in relation to the practical well-being of the world." ¹

It is improbable that at the present day there would be found many economists who would regard it as "*wicked*" to say that rent does enter into costs of production. But it is true that, if we are contemplating a stationary equilibrium of the kind conceived by the classics, the proposition that it does not, does imply, even if it does not state correctly, subtle truths which we should be ill advised to lose sight of. And it is significant that those who have urged most strongly for its retention have been those who have learnt their analysis from classical sources whereas those who have opposed it have been very largely under the influence of Clark.

5. Finally, we may take a case of more recent interest—the dynamic theory of interest propounded by Professor Schumpeter. This is a theory which, in my view, is quite definitely wrong. It cannot be salvaged by making its assumptions more explicit. Nevertheless, it seems possible that the ambiguity we have been examining may be responsible for what seems to be the flaw in Professor Schumpeter's reasoning.

The theory may be summarised in two propositions.² The first is negative. Under static conditions, says Schumpeter, there can be no interest. All costs are to be imputed back to the two ultimate factors of production, Labour and Land. All incomes, therefore, are either wages or "rent." There is no third class of static incomes. It follows—and this is the second and positive proposition—that interest must be a dynamic income. It emerges only when conditions are changing, and if change were to cease it would disappear. Clark urged that profit was essentially a dynamic surplus; Schumpeter goes one further and urges that the same is true of interest.

Now, there are certain features of Schumpeter's theory with which agreement is possible. We may agree, for instance, that in periods of change there are operative certain frictions which may

¹ *Memorials*, p. 436.

² It is naturally not possible to provide a complete account of Professor Schumpeter's theory here. I hope to do this on some future occasion. This part of his work is not as well known as it should be to English readers, and although I believe his theory of interest to be wrong, it is wrong, I believe, in a way which has positive significance. Certainly no one can read either the *Wesen und Hauptinhalt der Theoretische Nationalökonomie* or the *Theorie der Wirtschaftlichen Entwicklung* without feeling that his outlook on certain parts of economic analysis can never be quite the same again. For a thorough exposition of the theory in question these two works must be consulted.

result in more saving being imposed on the community than would have been undertaken voluntarily if these frictions had not been operative. On this point Mr. Robertson's analysis remorselessly drives home one of the main contentions of the Schumpeterian theory of development. We may admit, too, that in so far as interest is defined as the yield of *new* capital in the sense of net additions to the social stock, it is a phenomenon which will be absent from any conception of static conditions, for, by definition, capital is not increasing.

But in so far as interest is conserved not as a payment for new accumulation, but as a net return (*reinertrag*) to produced means of production (*produktzierte produktionsmitteln*)—and, in spite of some ambiguities, this is, I think, the interpretation which Schumpeter would have us put on the negative part of his theory—the theory does not seem to be acceptable. So long as we assume private property and exchange it is difficult to conceive a static state in which there exists produced means of production which earn no net income. Why should labour and the use of material factors be devoted to the maintenance of the produced means of production if no net remuneration is forthcoming? It is when we encounter a theory of this sort that we realise the unassailable core of truth underlying the old abstinence theory.

But why should Schumpeter have propounded such a theory?

Partly, no doubt, because of a sense of the practical importance of elements of transitory gain in the determination of actual rates of interest. This I should be inclined to say is the element of truth in the background. But partly, I think, because of a curious misunderstanding of the Clarkian analysis and a reliance upon the Clarkian construction in a way which prevents recognition of the existence of "static tendencies" in the wider sense of this term. Schumpeter's debt to Clark in this matter is obvious. He adopts the terminology. He bases his initial discussion of development on Clark's five-fold classification. And if this diagnosis is correct, in the last analysis, it is the rigidity of the supply of capital in the Clarkian construction which blinds him to the nature of the forces making for the emergence of interest under conditions which are not dynamic.

We can see this quite clearly if we look closely at his argument in the first chapter of the *Entwicklung*. There is no abstinence in the static state, he argues, following a passage of Clark's which we have already examined.¹ And, as we have seen, if abstinence

¹ *Entwicklung*, p. 48.

is to be regarded merely as that degree of refraining from present consumption which gives rise to net addition to the supply of capital, we can agree with him. But if abstinence is to be regarded, not only as a refusal to consume in the present in order that the sources of future income may be *enlarged*, but also as a refusal to enhance one's consumption now in order that the income of the future may not be depleted, then it seems to me that he is at fault and the Clarkian terminology is misleading.¹ But Schumpeter has foreseen some such objection as this, and he proceeds to argue that under static conditions there is no reason to alter the distribution of one's income through time. Given constant needs, he argues, as others have argued before him,² the maximum satisfaction will be attained by a constant flow through time. Under such conditions, to encroach upon capital, now, to enhance the income of the present at the expense of the income of the future, would be folly. The gain now does not counterbalance the loss then. The argument is valid, but it does not prove that interest is absent when conditions are not changing. On the contrary, it is the most important part of the case for the view that there must be interest in such circumstances. *For if there were no yield to the use of capital (no reinertrag) there would be no reason to refrain from consuming it.* If produced means of production are not productive of a net product, why devote resources to maintaining them when these resources might be devoted to providing present enjoyment? One would not have one's cake rather than eat it, if there were no gain to be derived from having it. It is, in short, *an* interest rate, which, other things being given, keeps the stationary state stationary—the rate at which it does not pay to turn income into capital or capital into income. If interest were to disappear the stationary state would cease to be stationary. Schumpeter can argue that no accumulation will be made once stationary equilibrium has been attained. But he is not entitled to argue that there will be no decumulation unless he admits the existence of interest.

What has happened, I think, is this. Schumpeter has based his static analysis upon Clarkian constructions in which the supply of capital is *held rigid*. Then when he comes to argue that there is no interest unless there is dynamic change, ignoring the fact

¹ Clark himself, of course, held a productivity theory of interest. We have seen that in this one passage he correctly formulates the conditions of stationary equilibrium in the wider sense.

² *E.g.* Landry, whose *Intérêt du Capital* is in many ways the best treatment of this important subject.

that a wider conception of stationary equilibrium is possible, he is blind to the consideration that if things are free to move, stationariness depends *inter alia* upon the interest payment being at a certain level. Such an interpretation may seem fantastic. Yet it is the only reason I am able to conceive for his apparent unawareness of the significance of the possibility of decumulation.¹ It is no accident, I suggest, that when he is discussing the distribution of income over time, he chooses a case where the possibility of decumulation in a straightforward way is absent—the income of a pensioner of the state!²

¹ There is one passage in the *Entwicklung* (p. 48) in which Schumpeter admits the possibility of abstinence in the sense of refraining from decumulation, but he brushes it aside as irrelevant to his construction: "Von Abstinenzun sinne von Nichtkonsumption der Ertragsquellen kaun—nicht die Rede sein, weil es unter unsem Voranwetungen andre Ertragsquellen als arbeit und Boden nicht gift." I confess I find this incomprehensible. Either there exist "produced means of production," or there do not. If they exist, then, if they are to be maintained, other factors of production must provide for their maintenance, and decumulation will consist in using these factors for making provision for present enjoyment. Or they do not exist, in which case to deny the existence of a return to them is merely tautologous and proves nothing whatever. To state dogmatically that "arbeit und Boden" are the only "Ertragsquellen" in any static conditions is, of course, to beg the question completely.

² It might be argued—I do not think it would be argued thus by Schumpeter himself, but it might occur to readers unacquainted with his actual theorem—that all he is denying is the existence of interest in what have been here called Clarkian conditions. I do not think that this would save the theory (Professor Knight has shown that even under such conditions a rate of capitalisation is implicit: *Risk, Uncertainty and Profit*, pp. 129–140), but in any case the interpretation cannot be accepted. Schumpeter's main contention is the positive one that interest is only conceivable under dynamic changing conditions. If the argument outlined above is correct, a rate of interest would exist if there were no change in the economic system but the factors were free to vary. Such a state of affairs, the stationary state of the classics, cannot by the wildest stretch of terminology be described as dynamic!

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EDGEWORTH, MARSHALL, AND THE INDETERMINATENESS OF WAGES

THE introduction of mathematical methods has been on the whole very beneficial to economic theory. Without their assistance the modern theory of value could never have been constructed, and, in particular, those parts of it which deal with monopoly and imperfect competition must have remained in a nebulous state and could not even have attained that degree of lucidity which they possess at present. But with respect to the theory of wages, mathematics has spread almost as much darkness as light. It has facilitated the construction of a theory of bilateral monopoly, so essential to an understanding of the economics of collective bargaining; but, on the other hand, it has wrapped the determination of wages under competition in a web of obscurity, by distracting attention from the significant factors in the problem, and concentrating on ultra-theoretical points of which the importance in actual practice is very questionable. What is worse, the mathematical theorists, after raising these special difficulties, have not completely cleared them up. They remain for the theory of wages a very disturbing skeleton; if the theory is to make any further progress, it seems highly desirable that they should be faced.

By far the most important applications of mathematics to the theory of wages are those made by Edgeworth and Marshall. Edgeworth's discussion (in *Mathematical Psychics*) is formally mathematical; Marshall's (in the *Principles*) is presented in a non-mathematical form, but is mathematical in essence. Both writers conclude from their investigations (though for different reasons) that there is a degree of indeterminateness, or arbitrariness, about the fixing of wages—even when combination is absent. Such a contention is obviously important, since it seems to imply that (at any rate in the short period) wages might be different from what they are without any effect on the demand or supply of labour, and therefore without any derangement of the economic system.

That combination normally introduces an element of in-

determinateness is a generally accepted conclusion; it is not questioned here. This discussion will therefore be confined to conditions where Trade Unionism and Employers' Association are absent.

I

Edgeworth stated his theory in a form at once so mathematical and so utilitarian that it is no wonder if *Mathematical Psychics* has found fewer readers than it deserves. If the nature of its arguments is to be duly appreciated, a translation into less formidable language seems to be necessary before we can embark on criticism.

A considerable part of the book is taken up with discussions of wages and labour, but it is quite clear that it was not written in order to examine these problems. It was written as a general defence of the mathematical method in economics, and defence is justified by demonstration. It naturally falls, therefore, into three parts: one containing the general defence, and the other two containing treatments of two selected economic problems by the mathematical method. One of these problems is that of value (economical calculus he calls it); the other is that of economic welfare (utilitarian calculus).

Edgeworth's investigations in the theory of value have naturally more interest to-day than his discussions of economic welfare—his wanderings in that twilight land where "each and all tend to maximum universal utility." The theory of value is treated by him in a thoroughly modern way, by studying the conditions under which a market arrives at equilibrium. On the whole, his theory of value stands; and if the applications to the theory of wages were valid then, they are valid now. But how far are they valid?

Edgeworth conceived the problem of value as being fundamentally a problem of the determinateness of equilibrium. His answer to the question, "How far is contract indeterminate?" is the key to this second part of the book. "The general answer is, (a) Contract without competition is indeterminate; (β) Contract with *perfect* competition is perfectly determinate; (γ) Contract with more or less perfect competition is less or more indeterminate." The second part is, in fact, taken up with proving this proposition, and with defining the conditions necessary for perfect competition.

But just what did Edgeworth mean by indeterminateness? On this crucial point there has been a great deal of misunder-

standing. It was the centre of the great controversy with Marshall, or at any rate it appeared to be. And in other ways it has raised difficulties. Nevertheless, up to a point, the meaning is quite plain. Contract is indeterminate when the general conditions of free exchange—that each party is seeking to better himself by the bargain, and that the terms of the contract are agreed on by the free consent of both parties—do not suffice to determine the terms of the contract and to ensure that one particular rate of exchange will inevitably be arrived at.

Where competition is absent, this is clearly the normal case. If two isolated persons are considering the terms of a bargain to be arranged between them, there will generally be a wide variety of different terms, any one of which would be accepted by both parties in preference to foregoing the transaction altogether. But among these sets of terms, some will be unstable. If by some chance one of these unstable contracts is agreed on (for it could be agreed on, being by definition acceptable to both parties), it will nevertheless be to the interest of both parties to revise it. Suppose that our two persons are an employer and a workman agreeing on the terms of a day's employment. Many different combinations of wages and hours would probably be agreeable to both parties if there seemed no alternative but a breakdown of the contract. But if the terms proposed involved long hours and high wages, it is obvious that a revision in the direction of shorter hours and lower wages might suit both the workman and the employer. Similarly, some combinations of short hours and low wages would be unstable. But although a considerable number of the agreements which appear possible at first sight thus prove unstable, we cannot be sure that any particular set of terms will be the inevitable outcome of the bargaining. If the employer bluffs successfully, he may induce the workman to come at low wages, and to work such long hours that it is not worth his while to offer to work longer as a means to make more. But if his bluff is less successful, hours may be shorter *and* wages higher, while both agreements give a stable equilibrium. The formal conditions of the market do not suffice to establish the terms; they are fixed by "what has been called the Art of Bargaining—higgling dodges and designing obstinacy, and other incalculable and often disreputable accidents."¹

¹ *Mathematical Psychics*, p. 46. It may be observed, as a deduction from this argument, that the possible terms of *stable* equilibrium can be arranged in an ordered sequence. As we proceed along this sequence, the terms become successively less favourable to the employer and more favourable to the work-

It has been necessary to repeat so much of the familiar theory of bilateral monopoly in order to elucidate the exact meaning given to "indeterminateness" by Edgeworth. But this is all fairly well accepted doctrine; its application to wage-theory is important in the highest degree. For we have only to substitute combinations for the isolated bargainers of the above example, and we have the germ of the modern theory of Collective Bargaining.¹ In this precise sense of Edgeworth's, the bargain between Trade Union and Employers' Association is indeterminate; a number of different agreements are possible, each of which is stable and cannot be disturbed by the free action of both parties endeavouring to improve their positions. Only by means of threats and "bargaining technique" can one party induce the other to agree to a settlement more favourable to it and less favourable to the other. Reasons can, of course be found even in this case, why a particular agreement was arrived at; but an additional set of data is required. From the standpoint of the forces which are sufficient to determine equilibrium in a competitive market, the bargain between two monopolists is indeterminate.

Edgeworth passes on from his discussion of bilateral monopoly to examine the problem of equilibrium under competition. Perfect competition, he holds, in complete agreement with the common view, is perfectly determinate; but the conditions for perfect competition are more complex than is commonly supposed. If any of these conditions is not fulfilled, contract is not perfectly determinate, and there is a range (though often a very narrow range) of different values at any of which the market can reach equilibrium.

The first of these necessary conditions is free communication throughout the market. Edgeworth states this condition, but he says very little about it, rather unfortunately. His reason for preferring special treatment of the other conditions was that they are "peculiarly favourable to mathematical calculation." Doubtless true—but it is an omission that must be remembered when applying Edgeworth's conclusions to general theory.

It is the other four conditions to which he draws special

man; or *vice versa*, for the contrary direction. Therefore, so long as we are concerned with stable agreements, there is a definite relation between wages and hours in a free market. In Edgeworth's terminology, every point of settlement must lie on the "contract curve."

¹ There are, of course, differences. Bargaining associations proceed by way of supply and demand curves, not by "contract curves" (cf. Bowley, *Mathematical Groundwork*, p. 8).

attention; and indeed the discussion of them is one of the central parts of the whole book. They are:

(1) The number of buyers and sellers must be indefinitely large.

(2) Each individual must be free to contract with an indefinite number of others at the same time. It follows from this condition that the things exchanged must be divisible to an unlimited extent—a more familiar condition, but one which has not the same range of implication as Edgeworth's.

(3) There must be no combination, *i.e.* no individual need seek the consent of other individuals before entering into a contract, but seeks on his own to better himself.

(4) There must be no association whereby groups of persons agree only to enter upon contracts simultaneously.

The third and fourth of these conditions have been excluded from this discussion, but we are concerned with the first and second. The following is the argument by which Edgeworth shows that they are necessary for determinate equilibrium.

He has disposed of the case of a simple monopolistic market, with one buyer and one seller, and he next proceeds to pass over from monopoly to competition by introducing more persons on to the market. The most instructive case is that in which there are two buyers and two sellers. Under these circumstances, how will equilibrium be determined?

In the first place, it is clear that there is sufficient competition to ensure that the same terms of exchange will obtain throughout the market.¹ For if not, "It will usually be to the interest of the *X* of one couple and the *Y* of the other to rush together, leaving their partners in the lurch." When the terms are not identical, equilibrium is unstable. But although the terms must be identical, they are not necessarily determinate. The range of possible settlements is narrower than in a pure monopolistic market, but it may be appreciable.

Suppose that there are added to the single employer and single workman of our earlier example, another employer and another workman; or suppose that two such couples are brought into contact. Now, if, before communication was opened, the employers had had the better of the higgling and bargaining, and

¹ If the two employers or the two workmen differ in disposition or circumstances, this requires a little modification. But competition will in any case prevent a wide divergence between the terms.

wages were low, then the employers' competition must force them up. But how can it do so? There is only one way. No advantage can be derived by any party from a simple change round, once uniformity of terms has been established. But if wages are very low, an employer may be able to benefit himself by taking on both workmen, and offering terms sufficiently superior to those offered by his competitor to attract the other's workman away. That competitor, "left in the lurch," will then bid up again in order to recover his unfaithful servant. And this process will go on until it ceases to be advantageous for either employer to take on a second man at terms which the men would prefer to those ruling. The terms at which the employers cease to be willing to make such a change will fix the minimum wage at which equilibrium is finally possible in this market.

If the wages ruling before communication was opened were very high, then under suitable technical conditions it may be advantageous for the employers to "share" a workman. The other workman will therefore be left unemployed, and will reduce his terms sufficiently to persuade one employer to leave this uncomfortable position and re-employ him. This will give the maximum possible wage. The wage cannot be higher than its maximum, because at higher rates it would be advantageous for the employers to share a workman; it cannot be lower than the minimum, because at lower wages it would be advantageous for an employer to take on two. It should be clear that these limits are fixed by different causes, and that therefore there is no reason to suppose that they will normally be represented by the same rate. Normally, there will be a gap between them, over which the rate is still indeterminate.

This argument has been presented in terms of labour contracts, because it is in labour contracts that we are particularly interested. But it will be observed that there is a certain awkwardness in doing so. "Sharing" a workman is an operation neither familiar nor usually convenient, and it is true that in applying the theory to labour contracts we introduce a complexity at this stage which would be absent if we were dealing with commodity markets. To them the theory applies with less qualification, and it was, of course, in terms of them that the theory was first thought out. But we shall return to this matter later.

As the number of buyers and sellers is increased, the minimum rises and the maximum falls.¹ Thus, in the limit, the range of

¹ See *Mathematical Psychology*, pp. 37-8.

indeterminateness will tend to disappear, and we have a state of perfect competition with determinate equilibrium. In fact, of course, not many competitors will be required to make the indeterminateness negligible.

The necessity of Edgeworth's second condition has really been established simultaneously with the first. It will have been observed that the only way in which competition can change rates from one level to another (apart from equalising them) is by one buyer entering into contract with two sellers, or *vice versa*. If this is not possible, then competition is powerless to reduce indeterminateness. Edgeworth illustrates by imagining a market consisting of an equal number of employers and workmen, and working under the condition that no employer can take on more than one man, nor any man serve two employers. Then, he says, even if there should be a "sudden influx of wealth into the hands of the masters," equilibrium would not be disturbed. For the employers would be unable to utilise their wealth in increasing their demand for labour.

As a consideration of practical importance in the labour market, this second imperfection is easily disposed of. Edgeworth suggested that it might impede the bidding up of wages by employers in "many cases of contract for personal service." These are hard to find; it is not easy to think of a type of "personal service" where an appreciable number of employers do not demand the services of more than one employee, nor of a case where a "sudden influx of wealth" would not increase the number of would-be employers on the market. But even if it could be found, the argument would still have no practical significance. For it is really only valid in the special case where the workmen offering their labour are "equal-natured."¹ Suppose this is not so; then, if the employers' capacity to pay did increase, they would bid against each other, not to increase the number of their employees (for that is assumed impossible), but to improve the quality of their single attendant. Numbers of employers would seek to secure a servant who was more highly trained, or who possessed some other form of advantage. Previously they could not afford the higher wages which these better men were naturally securing, but now they would bid for them, and try to attract them away from their employers. In this way there would be no obstacle to the bidding up of wages.

¹ Edgeworth does extend some of his theoretical analysis to the case of "different natures." But, as too often in *Mathematical Psychics*, in the practical illustration such circumstances are overlooked.

This kind of imperfection should theoretically be of greater significance in the opposite case. Edgeworth noticed this, and in an article in the *Giornale degli Economisti* (1891) ¹ he observed that the fact that it is much easier for an employer to take on two workmen than for a workman to serve two employers "constitutes a positive advantage to the workpeople in their dealings with entrepreneurs." Fortunately he qualified this: "I do not regard these nice points as more than *curiosa*." For what does this argument mean in practice? If we are dealing with industrial production, many men being employed by each entrepreneur, the range of indeterminateness involved is only that between the marginal product of n men and $n + 1$. This difference is usually regarded as the atom of economics, into whose recesses we need not pry. But even if the ratio of workmen to employers is small, and the differences do become significant, we can only regard as serious the possibility of the men getting an advantage within the limited range available if we suppose the employers to be "equal-natured" and equal-circumstanced. Otherwise, different employers will be situated differently with respect to their demand for labour; some will be on the verge of increasing their demand, others on the verge of reducing it. Once we assume a fluid market (i.e. that changes do not in themselves involve costs and inconveniences) we may be certain that a slight change in the situation of employers will inevitably have its reaction on the demand for labour. Even if it is insufficient to cause all employers to change their demand, it will influence some. Edgeworth's second imperfection naturally produces "*curiosa*"; it is a problem of discontinuity, and the effects of discontinuity are usually reduced to vanishing point when we have individuals of varying capacities on the market.²

To the first imperfection (limitation of numbers in the market) Edgeworth pays little attention. He tells us that it "applies to Monopolies," and leaves it at that. In fact, of course, there can be little doubt that it is very much more important than the second imperfection.

This may perhaps suffice as an abridged statement of Edgeworth's argument and criticism of its details. The more important question of its relation to actual labour problems will be postponed until we have examined the rival theory of Marshall.

¹ Summarised in *Papers*, II. 313.

² To complete this argument, the case of a class of labour where total numbers are very limited should formally be included. This is the case, of course, where the rule that "no man can serve two masters" most commonly breaks down.

II

The passage in which Marshall suggests the existence of a range over which wages may be indeterminate is to be found at the end of his chapter on Market Price. "When a workman is in fear of hunger, his need of money (its marginal utility to him) is very great; and if at starting he gets the worst of the bargaining, and is employed at low wages, it remains great, and he may go on selling his labour at a low rate. This is all the more probable because, while the advantage in bargaining is likely to be pretty well distributed between the two sides of a market for commodities, it is more often on the side of the buyers than on that of the sellers in a market for labour."¹ The opposition between this doctrine and Edgeworth's is apparent; but so is its extreme convenience as a basis for the defence of Trade Unions. It is not surprising that it has raised considerable controversy, especially as consideration shows that Marshall's meaning is extremely obscure. He himself declared that "the practical importance of this consideration is not very great"; but others do not seem to have agreed with him. In order to appreciate his meaning, and evaluate its importance, it still seems necessary to examine what he said more carefully than has been done up to the present.²

At first sight, Marshall is maintaining that there is an arbitrary element in the determination of wages, arising from the simple fact that wages are low. In consequence of this, it is impossible in the case of labour to make the simplifying assumption which he found so useful in his general value theory, that the marginal utility of one of the commodities exchanged remains constant throughout the transaction. The same difficulty arises in the labour market as in a market where barter is practised. "The

¹ *Principles*, 8th edition, p. 335.

² The first criticism of this passage was naturally made by Edgeworth. In his *Giornale* article he pointed out the divergence, but unfortunately fell at the same time into a misapprehension about Marshall's use of the term "Rate of Exchange." This was pointed out by Mr. Berry. In replying, Edgeworth did not make it as clear as was perhaps desirable that his main criticism stood. Neither the note on this controversy in Marshall's *Principles* (later editions), nor Edgeworth's summary in the *Papers* are as illuminating as the original articles. (See *Giornale degli Economisti*, 1891, March and October (Edgeworth), June (Berry). Also Edgeworth, *Papers*, II. 313, and Marshall, *Principles*, note xii *bis*.)

A second attack on the Marshallian doctrine of barter was made in the *ECONOMIC JOURNAL* (September 1906) by Professor Loria, who maintained that Marshall had failed to distinguish between the cases of monopoly and competition. Professor Loria, however, seems not to have observed that competition, in the ordinary sense, is really ruled out by Marshall's assumptions.

Mr. Dobb's use of the doctrine in his recent article will be discussed below.

real distinction between the theory of buying and selling and that of barter is that in the former it generally is, and in the latter it generally is not, right to assume that the stock of one of the things which is in the market and ready to be exchanged for the other is very large and in many hands, and that therefore its marginal utility is practically constant.”¹ It was barter that Marshall particularly analysed, and if we are to throw light upon the case of wages, the celebrated “nuts and apples” example by which he illustrated the problem of barter must first be considered.

Throughout his theory of market price, Marshall treats of groups of buyers and sellers who have *stocks* of commodities which they wish to exchange. He imagines the sale to proceed by stages, a fresh bargain being struck as each dose of a commodity is sold. Under these circumstances he has no difficulty in showing that :

(1) Even in a position of bilateral monopoly, with one buyer and one seller, the *final* rate of exchange will be determinate if one of the commodities exchanged has a constant marginal utility to both parties.

(2) Even in a state of competition, where there are many competing buyers and sellers, the *final* rate of exchange will not be determinate unless the constancy of one marginal utility is given.

(1) If the stock of one of the commodities (*A*) held by both parties is sufficiently large for the transaction to make no appreciable difference to its marginal utility to either of them, then the rates at which they will be prepared to exchange the other commodity (*B*) will depend simply on its (*B*'s) marginal utilities to them. If an extensive transaction is to take place, then there will have to be a considerable gap between the marginal utilities of the first unit to buyer and seller (between demand-price and supply-price). Exchange can take place at any rate between the two. But whatever is the rate of exchange, it will make no difference to the demand-price and supply-price of a second unit. These will depend on the marginal utilities of that unit, and so are *ex hypothesi* unaffected by the rate at which the first unit has been exchanged. It is therefore evident that *B* will go on being exchanged until its marginal utilities to both parties are equal. This must happen after a determinate number of units of *B* have been exchanged (determinate in the sense that it is independent

¹ *Principles*, Appendix F.

of the terms on which the earlier units were exchanged); and the rate at which the last unit is exchanged is also determinate, since it is proportional to the marginal utility of the last unit.

But once this assumption of constant marginal utility is dropped, the rates at which earlier units were exchanged begins to have a very significant effect on the demand and supply prices of later units. Equilibrium will be reached sooner or later according as the earlier stages of the bargain favour one party or the other.

(2) The multiplicity of buyers and sellers makes no essential difference to this argument. There is less likelihood of a wide divergence in bargaining technique between the two sides when they are composed of many individuals; and consequently "the mean of the bargains would not be so likely to differ very widely from" the final equilibrium rate "as in the case of barter between two people."¹ Nevertheless, if there is any divergence, it will affect the demand and supply prices for subsequent units, and thus affect the position of final equilibrium.

How far can this argument be applied to the case of labour? The only situation in the labour market which can possibly correspond exactly to the problem of barter is a bargain between employer and workman for a single day's, or a single week's, work. (This is the only case in which the problem can possibly be treated as one of *stocks*.) It does not seriously distort this case if we suppose the workman to sell his labour piecemeal, hour by hour. Then all that the barter argument can prove is that, in single contracts of this kind, superior bargaining capacity could have no effect on the length of the working day if the marginal utility of money to the workman were constant. In fact it is not constant; and so, if wages are low, as a result of the employers' superiority in bargaining skill, the workmen will be prepared to work long hours. This conclusion is certainly correct; but it can hardly be called profound.

Now there is a strong reason for supposing that this is not what was in Marshall's mind. He adduces as a second source of employers' advantage in bargaining "the fact that each seller of labour has only one unit of labour to dispose of," and he cannot have done this unless he was thinking of the amount of labour the workman offers as fixed. This seems to preclude any attainment of equilibrium by dosing, and leaves us with the alternative, but not much more satisfactory view, that Marshall was thinking, in this case, of a continuous market, and not of an

¹ *Principles*, Appendix F. p. 792.

exchange of stocks, although every other example in the chapter in question is concerned with exchange of stocks.

Once we assume a continuous market, with production and consumption going on all the time, with contracts being made afresh at regular intervals, then it is true that Marshall's statement would, under certain conditions, be formally justified. In a single contract (for a single week's work, say) the lowest rate which the labourer will be prepared to take will be largely governed by the marginal utility of money to him; and since that marginal utility will be high, the rate will be low. When recontracts take place in subsequent weeks, the low wages earned will have done no more than satisfy the labourer's most immediate wants, and will have left him without any reserve on the basis of which to refuse the bad terms offered. He will "go on selling his labour at a low rate," for the marginal utility of money to him is no less than it was before.

But if this is a correct interpretation of what Marshall meant, the argument seems curiously out of place where it occurs, for it is subject to an important qualification from which the arguments that surround it are free. In a continuous market, the question of competition or monopoly is significant. If we suppose a single workman serving a single employer—both in isolation—and the first week's work is done on terms disadvantageous to the workman, then he is likely to go on selling his labour at the same low rate, for he will have no lever to get the contract revised in his favour. But if we suppose multiplicity of employers and workmen, free communication and a competitive market, terms which were fixed in the first week to the workmen's disadvantage will be subsequently modified by the employers' mutual competition, by some employers endeavouring to take on more men. Wages will thereby be bid up to the normal value of the labourers' marginal net product, and the first disadvantageous contract will have no effect in depressing them. It is quite true that in the case of barter, with the assumptions Marshall made, competition is ruled out. But if his doctrine about wages is to make any sense, competition is relevant.

III

This theory of Marshall's has recently been brought into prominence once more by Mr. Dobb. In his recent article ¹ he uses it as one of a number of missiles with which to assail current

¹ "A Sceptical View of the Theory of Wages" (ECONOMIC JOURNAL, December 1929), particularly pp. 511-13.

wage-theory. But he uses it in a form which is slightly different from Marshall's, and which, one feels sure, Marshall would not have sanctioned. To examine all Mr. Dobb's arguments (and most of them are much more important than this one) would be to go far beyond the limits of this paper.¹ But it is fairly easy to show—on the basis of what has just been said—that this particular missile does not reach its mark.

The critical passage in his article is the following :—" Since the labourer is propertyless, the sale of his labour will constitute his only source of income, and the terms of the sale will virtually affect his whole position and will be the principal determinant of the labourer's subjective valuation of his own labour in terms of the income which he secures in return. In other words, a change in the price of labour in either direction is likely to produce a change in the supply-price of labour of a similar kind, thereby creating a tendency for any fall in wages to become cumulative, as in the classic case of sweated trades. If we have here an equilibrium at all, it is unstable rather than stable." It will be observed that Mr. Dobb is here asserting more than Marshall did. Marshall spoke of disadvantageous contracts having a tendency to keep wages low; Mr. Dobb speaks of a cumulative fall.

It is true that there is a difference between the cases discussed. Marshall was considering the case of an unemployed man, whom an employer is engaging at the lowest rate he will take. Mr. Dobb is dealing with a fall in the demand for labour and its effect on the wages of men continuously in employment. The whole question evidently turns on the relation between the terms of engagement in one week and the labourer's demand for income in the next. Edgeworth assumed them independent; Marshall suggested a connection in one special case. What happens if we generalise the conception?

Strictly speaking, such a connection depends on a carry-over of income between the two weeks, and it might perhaps be held that Mr. Dobb's assumption that the labourer is propertyless had ruled that out. But since the feeling of repletion from his last dinner (quite apart from the mere coverings of decency) would count as a form of property, this objection cannot really be sustained. It seems fair to discuss the problem in relation to a reserve, and inquire what effect the possession of a reserve will have on equilibrium in the labour market.

¹ Most of Mr. Dobb's contentions only seem to become very significant under conditions other than those of free contract.

It is only in the case where hours are variable, or when piece-rates are paid, that the problem arises, for otherwise the workman's individual supply-curve of labour does not enter into question. Under these conditions, a fall in the demand for labour will lead to an adjustment in the amount of labour offered, but it clearly cannot be an adjustment sufficient to prevent a fall in weekly wages. Now, if consumption is less adjustable than the supply of labour, and does not respond to the lower wage-level, then at the end of the first week the reserve will be reduced, the marginal utility of income will be increased and the supply-curve of labour shifted to the right. This shifting might conceivably result in weekly wages being restored to their former amount, and then equilibrium would clearly be reached at once. Wages would be the same as before, but more work would be done for them. In the much more probable case when the shifting is insufficient to restore the wage-level, there will be a second reduction of reserve, a second shifting of the supply-curve, and a new temporary equilibrium. This process will go on until the reserve has disappeared. But it cannot go on longer. When the reserve is gone, consumption must contract, and the market settle down to a final equilibrium.

In such a case, when the conditions of work are easily adjustable, but personal expenditure is not, it does seem clear that the final equilibrium may be reached by stages. But there is no reason to suppose that the stages will not converge to a stable position, nor that the existence of such joints in the wage-mechanism should affect our handling of any but exceptional problems.

IV

It seems to follow from the foregoing discussion that the only "imperfection" that is likely to have any durable effect on the determination of wages is monopoly and limitation of the market. Edgeworth's second imperfection is seen to be altogether negligible when we take into account differences in efficiency between labourers; and Marshall's "varying marginal utility" can have only transitory effects, unless there are impediments to the action of competition. It remains for us to examine what is the significance of these impediments in the real world.

There are two possible cases of monopoly that seem worth consideration. The first—and it is clearly this that was in Marshall's mind—is where a single labourer comes to an employer and offers himself for a vacancy, the only vacancy that

he knows of within the area that he can reach with his limited means. This is clearly a case of bilateral monopoly (however transitory the monopoly may be), and in consequence it is supposed that the employer, sizing the man up from his tattered appearance, offers a wage near to the lowest that he thinks the man will take, even although it is far below that which he would be willing to pay under other circumstances. No doubt, odd men seeking casual jobs are sometimes engaged in this way; but it is unlikely that it has ever been the general rule throughout industry. Pushed to its logical extreme, it would mean that employers engaged labour by a process of discriminating monopoly—a thing which no employer who was not a fool, and who wanted to get good work out of his men, would do. In an industry of small firms, each employing only a few workmen, it would no doubt be commoner than in large capitalistic enterprise. But at no time is it likely to have made much difference to the general level of wages; as industry develops, this slight effect must inevitably tend to disappear.

It is, of course, very difficult to verify this conclusion by a study of English industry to-day, with its minimum wages and Trade Union control. But it is significant that thirty years ago Mr. and Mrs. Webb reached by observation the same conclusion :—“The most autocratic and unfettered employer spontaneously adopts standard rates for classes of workmen, just as the large shopkeeper fixes his prices, not according to the higgling capacity of particular customers, but by a definite percentage on cost.”¹

It is much more possible for an employer to exercise simple monopoly on a large scale. Technically, this is not a case of indeterminateness, since it is obviously to the interest of a monopolist employer to push wages down to the lowest point which is consistent with his retaining the labour of a requisite number of workmen, and this raises no analytical problem. But the cases are so closely connected that it may fairly be considered here. When other employment of anything like the same kind is completely outside the reach of his employees, an employer may easily exercise great monopoly power.² Where, as in the more common case, the labourers can secure other employment, but only with varying degrees of difficulty, the conclusion is less certain. On the whole it would appear probable that partial

¹ *Industrial Democracy*, p. 281.

² Some of the most striking and conclusive instances of this are to be found when a large country is being developed by a few alien capitalists. There have been instances where wages have remained for years unaffected by a considerable rise in the price-level.

monopoly of the ordinary kind does not have much effect in depressing wages; though it is perhaps partly responsible for some districts lagging behind others when there is a general rise of wages to meet rising prices.

For it must be remembered that the influence of competition on wage-fixing is rarely exercised directly. Competition governs wages, as the law keeps order, by readiness to step in, not by continual interference. Particularly is this the case in a country like England, where labour turnover is generally small. In the majority of cases, a man gets higher wages by persuading his employer that he could get them somewhere else, not by actually changing round. Such changes would cause inconvenience to employers as well as to workmen; wages can well move without them. It is natural, therefore, that wage-changes in one firm should roughly follow another, even if actual transferences of labour were to be a matter of some difficulty.

But considerations of this kind open up wider perspectives. Once we go forth into the actual world, we must take into account a host of other circumstances which are properly excluded from an extension of the pure theory of value. Some of these actually simplify the problem; the fact that in a large works, the hours worked by different labourers must be the same (or at any rate bear a relationship determined by technical considerations), means that in some labour problems the variability of hours, which so complicates the pure theory, can be left out of account. But the existence of large capital investment has other consequences less favourable to a simple theory of wages. A change in demand for the finished product will be met by employers in a different way according as they expect it to be temporary or permanent; this expectation will affect their demand for labour and so will affect wages. An increased demand which is expected to be brief will not lead to any extension of plant; it will be met by working overtime, only to a slight extent by taking on more labour. At a later stage, if the increased demand continues, it will usually be necessary to carry out a more thorough reorganisation, which is likely to be accompanied by a more considerable expansion of the labour force; but direct raising of wages is not the only way in which an increased supply of labour can be secured. Up to a point, much can be done by advertisement, or by the engagement of rather inferior workmen. Wage-rates will only be raised if other resources are exhausted and if the employers are convinced that the good times are likely to be of fair duration. Similarly, in the case of a reduction in the demand for his

product, an employer may decide to make for stock, or to discharge those workmen who are least essential to him, without reducing wages and so causing bad feeling, if he considers the depression is likely to be short.

Such matters can be only suggested here, not worked out properly; but it is rather surprising that the phenomenon of the "wage-lag" to which they point has not received more attention in relation to the problem of indeterminateness. They are indeed strong reasons for supposing that wages do not in practice correspond with the marginal net product of labour at all precisely. If there is any considerable tendency for wages under free competition to fall below marginal net product, it is far more likely to be due to the characteristics of the trade cycle than to any "bargaining advantage."

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NOTES ON SUPPLY

THE following notes do not profess to give a comprehensive survey of the problems of supply. Attention is concentrated on a few isolated points. The intricate questions connected with external and internal economics which have recently received important treatment by Professor Pigou (*ECONOMIC JOURNAL*, June 1928) and by Mr. Shove (*ECONOMIC JOURNAL*, March 1930) are not dealt with. This paper is propaedeutic rather than supplementary to those studies.

I

In this section it is proposed to consider cost conditions in individual sources of the supply of a commodity and for this purpose to make certain simplifying assumptions, namely, (1) that the cost of production is in each source a function of the output of the source only, and (2) that the industry can obtain its factors of production at a constant price.

1. The short period.

A source of supply may be conceived as an aggregation of productive factors within which a dichotomy of costs into prime and supplementary can suitably be made. Sources are demarcated from one another by reference to the limits within which the two classes of factors are co-operating. A structure of fixed equipment or organisation gives the unity which the notion of "a source" of supply requires. Such a source need not be a business firm. Within any business firm the dichotomy is possible, and a firm may therefore be regarded as a source. But sources may be divided into sub-sources, manufacturing plants for instance, within which the dichotomy may be re-introduced, and the following analysis applies to sources, sub-sources, subdivisions of these, etc.

Various suppositions may in abstract theory be made with regard to the behaviour of costs as the output of a source increases.¹ The only supposition which is likely to be true in fact

¹ It is assumed throughout that by x units of output from a source is meant x units of output, per unit of time, at a given point of time, T . To suppose an "increase" or "decrease" of output is to suppose x larger or smaller at T .

is that, if there is a fixed amount of equipment or supplementary cost, prime costs per unit of output fall in the early ranges of output, but begin to rise after production has reached a certain level. Supplementary costs are taken to be constant in the short period over the range of production considered; and costs which vary with the output are regarded as prime; this is justified by the definition of a source. If fixed equipment is required at all, it should clearly be assumed that beyond a certain point increments of factors applied to that equipment will get a diminishing output per unit.

In the adjoining figure the curve KC_m represents the marginal prime cost per unit of output. The marginal prime cost of x units is conceived as the total prime cost of producing x units less the total prime cost of producing $(x - 1)$ units. The curve

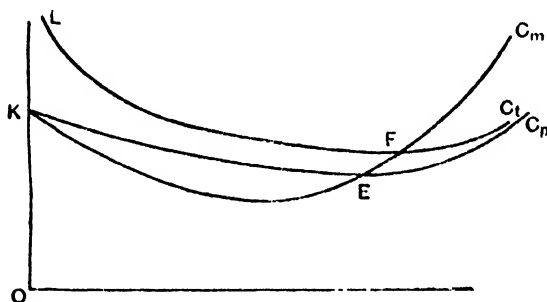


FIG. 1.

of KC_p represents average prime costs. If P is any point on KC_m and a perpendicular PM be dropped to the horizontal axis, then KC_p is the locus of a point Q on PM or PM produced, such that $KPMO =$ the rectangle OQ . It appears from direct inspection that the point of lowest average prime cost is the point at which the curves intersect (E), that is, the point at which average prime and marginal prime cost are equal.

The curve LC_t represents average total cost per unit and is the locus of a point R vertically above Q such that if RS be drawn perpendicular to the vertical axis, $RQ \times RS$ is constant and represents supplementary costs. The curve LC_t approaches KC_p asymptotically. It appears from inspection that the point of lowest average cost (the point of optimum output for the source) is that of the intersection of KC_m and LC_t (F). At the point of optimum output the average total cost is equal to the marginal cost.

If there are many sources of supply, so that variations in the

output of a single source do not affect the price of the commodity (conditions of perfect competition), the demand with which such a source is confronted may be represented by a horizontal straight line. The output of the source is fixed by the point at which the curve of marginal cost intersects the demand curve when the former is sloping upwards. The higher the demand the greater the supply. The output of the source consequently obeys the law of increasing supply price.

If the demand curve cuts the marginal cost curve of a source at a point between the minimum marginal cost and E (or lies below all the cost curves), prime costs are not covered and the source can only continue to produce on the expectation of an improvement in demand; it is convenient to call this condition absence of short-period equilibrium. If the demand curve cuts the marginal cost curve between E and F, there is short-period equilibrium, production will continue, but supplementary costs will not be covered. If the demand curve cuts the marginal cost curve at a point to the right of F there is a surplus yield.

The expression "supplementary costs" is ambiguous. A given market price must be paid for liquid factors; otherwise they will not be forthcoming. But the fixed factors are *ex hypothesi* already acquired and immobilised. They are no longer able to demand their market prices; they can only receive what can be obtained by the most satisfactory working of them. The reward of the fixed factors is Marshall's quasi-rent. If the demand curve cuts the marginal cost curve at P and the perpendicular to the horizontal axis PM (or PM produced) cuts KC_p at Q, quasi-rent is represented by $PQ \times OM$. This is positive if P lies above Q and negative if Q lies above P.¹ There is then no predetermined supplementary cost, the price payable to the fixed factors being in the short run passively determined by the relation of the demand price to prime costs.

The consequence of this is that the concept of supplementary costs represented by the curve LC_i seems to be meaningless. To overcome this difficulty, it is convenient to suppose that the fixed factors should receive a "normal" profit or return. In the equation $RQ \times RS = K$, which determines the locus of R (the curve LC_i), K (the supplementary cost) is taken as the sum

¹ If a , b and c units of the liquid factors, A, B and C are employed, if $f(a, b, c)$ is the output which they can obtain when used in conjunction with the fixed plant and p the price per unit of output, then quasi-rent = $p\{f(a, b, c) - af_a - bf_b - cf_c\}$. f_a is the rate of output of factor A at the margin with b and c constant, pf_a the rate of reward of factor A and apf_a the total reward of factor A. Similarly with f_b and f_c .

which gives a normal return to the fixed resources. If the demand curve intersects the marginal cost curve to the right of F , the fixed factors are getting an excess reward, if at F a normal reward, if between F and E a sub-normal reward, and if to the left of E a negative reward.¹

Different sources may be expected to differ in efficiency; some may earn excess profits while others are earning sub-normal profits; in the short period they may all be earning excess profits; or they may all continue to earn sub-normal profits, until the quantity of output is curtailed by equipment wearing out and not being replaced. A survey of sources taken at any one point of time is likely to show various rates of profits according to the efficiency of the sources and also various rates of working. A source which is making sub-normal profits must be working below the optimum capacity. (Output is represented by a point to the left of F .) One which is making excess profits must be working above its optimum capacity. The point of optimum capacity is always a point at which marginal costs are rising. It is also the point of normal profits. The point representing actual output must be one at which marginal costs are constant or rising. If it can be shown of any source of production that this last proposition is not true, it may be inferred that the condition of perfect competition is not fulfilled. The apparently frequent occurrence, in fact, of sources working "under capacity" in the sense that average prime costs (including those of transport and marketing) could be reduced by an expansion of output of the source, is evidence that conditions of quasi-monopoly are much more widespread than used to be supposed. Cost conditions in a monopolistic or quasi-monopolistic source are briefly discussed in Section II.

The short-period supply schedule is a list of the quantities contributed at a point of time, T , per unit of time, in response to various possible prices at that point of time, the fixed equipment being incapable of increase or diminution. Short-period equilibrium in the industry is attained if no source is working at a loss, that is, if quasi-rent is nowhere negative. The supply schedule of each source shows increasing supply prices and, if external economics are absent, so does the supply schedule of the whole industry.

¹ PQ is the actual rate of quasi-rent per unit of output, RQ the rate per unit of output which would give normal profit. Normal profits are actually earned, therefore, if output is represented by the point of intersection of the locus of P and that of R (F).

2. The long period.

With the short period may be contrasted the long period. In discussion the length of the long period is too often left indefinite or taken as infinite. It is useful to have regard to something intermediate between a single point and infinity, say, to a finite interval of time, s . Short-period supplementary costs may be divided into those which are prime and those which are supplementary relatively to s . Fixed equipment may be repaired, replaced or extended. Part of the fixed equipment, whether building and machinery, or a core of organisation and goodwill, may be expected to survive the period, s . If s is infinite, all organisation becomes obsolete, goodwill is forgotten and railway embankments become level with the surrounding country-side. That section of the fixed equipment material or immaterial which survives s intact is called supplementary or fixed relatively to s . That which is subject to replacement or reconstruction within s is supplementary relatively to a short period but prime relatively to the long. Long-period supplementary equipment may be increased but not diminished in any source during the long period. It may be diminished in the industry as a whole by sources going out of action.

In the long period, long-period prime factors must receive a normal reward, their market price, or they will not be forthcoming. The reward payable to them per unit is equal to their marginal product. If a source is in long-period equilibrium the marginal products of the long-period prime factors must be equal to their market prices; also these factors must show decreasing returns.¹

If a shrinkage of demand supervenes upon the equilibrium, the marginal product of the long-period prime factors falls below their price. They will consequently not be renewed in the long period. The curtailment in the use of these factors in connection with a given amount of long-period equipment will raise their marginal product to equality with their price. As a result of this shrinkage in short-period fixed equipment, when a second long-period equilibrium is achieved, the short-period prime cost

¹ If x units of short-period prime factors (X), y units of long-period prime factors (Y) and z units of long-period fixed factors (Z) are used, output = $f(x, y, z)$. If Z is constant throughout we may say, output = $f(x, y)$. $f'(x, y)$ (x constant) and $f''(x, y)$ (y constant) are both positive. $f''(x, y)$ (y constant) is always negative in short or long equilibrium in conditions of perfect competition, for otherwise the employment of x would at once be increased. $f''(x, y)$ (x constant) is negative in long-period equilibrium, for otherwise the use of y would tend to increase.

of production will be greater throughout the range of production.¹ The long-period effect of the fall in demand will be to raise the short-period supply schedules of all sources affected in this way.

The fall in demand may be expected to reduce quasi-rents in some sources below zero and to eliminate those sources. This mitigates the decline in demand for the products of the other sources. The diminution of sources will tend to be greater the smaller is the proportion of long period supplementary to prime costs. The greater the elimination of sources the less will be the rise of the short-period supply schedules in the residual sources. This gives the basis of an important classification of industries, namely, by reference to the extent of the rise of the whole short-period supply schedule in response to a fall in demand. We are still within the domain of the law of increasing costs; the kind of response analysed here might be called the *law of decreasing cost conditions*. All industries obey this law for the range of production below an initial long-period equilibrium, except those industries none of whose fixed equipment survives the period *s*. The curve of decreasing cost conditions is less elastic the greater the permanent equipment.

This law does not hold generally for the range of production above an initial point of equilibrium. This asymmetry is due to the fact that the long-period fixed equipment of sources may be increased but not decreased. If the quasi-rent accruing to this permanent equipment is below normal in a source, that source is not putting its permanent equipment to its optimum use, and a rise in demand will cause more short-period fixed equipment to be used in conjunction with the already existing permanent equipment, and the short-period supply schedule for that source will fall in response. If the sources in which these quasi-rents are initially below normal preponderate in the industry, the whole industry will probably be subject to *decreasing cost conditions* for a certain range of production in excess of the initial quantity. But if permanent fixed equipment is already being put to its optimum or to an excessive use at the initial point in most sources, the law does not hold.

To sum up, where the law of decreasing cost conditions holds the following propositions are all true of a long period. (1) An

¹ $f'(x,y)$ (x constant) is positive for all values of x . Consequently, $f'(x,y)$ (y constant), which is the reciprocal of the short-period marginal prime cost of production, is smaller the smaller is y . But y has *ex hypothesi* been reduced between the two equilibria.

increase in demand would reduce the short-period prime cost of production and consequently the supply schedule of the industry. (2) An increase in demand would also reduce the average cost of production if all kinds of overhead charges are included. (3) Notwithstanding this an increase in demand would raise the price of the product, and consequently the industry is subject to the "law of increasing costs" as commonly understood. Confusion has arisen through failure to observe that these propositions are mutually consistent. The possibility of this complex state of affairs is due to the fact that certain elements of supplementary cost, especially the immaterial elements of organisation and goodwill, are often not destroyed within what may reasonably be regarded as a long period. Long-period equilibrium

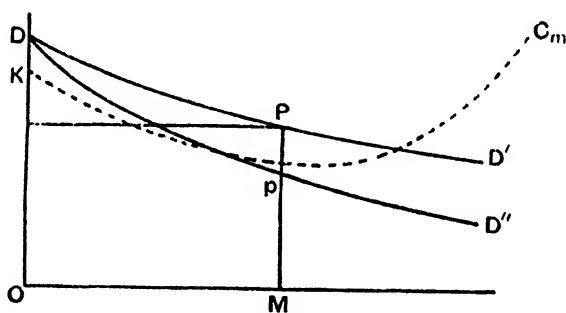


FIG. 2.

is consequently compatible with there being too many sources, that is, too many centres with a core of permanent equipment, and every one or many of these centres working below their optimum capacity.

II

We shall now consider the case where the source of supply is not small in proportion to the whole industry. When that is so, the source is confronted with a falling demand curve. When there is one source, the demand with which it is confronted is that of the whole market. Where the curve showing the demand for its output is not horizontal, the output of a source is not determined by the point of intersection of the demand curve and the marginal cost curve. The demand curve of the market shows the price per unit at which suppliers can find buyers for x units for all values of x . From this curve may be deduced another (Fig. 2), which I propose to call the increment of aggregate demand curve, and which shows the aggregate price that

suppliers can obtain for x units of output less the aggregate price that they can obtain for $(x - 1)$ units for all values of x . If P is any point on the demand curve DD' , and PM a perpendicular to the horizontal axis, then the increment of aggregate demand curve (DD'') is the locus of a point p on PM such that $DpMO =$ the rect. OP . The output of a monopolistic source is determined by the point at which the marginal cost curve cuts the increment of aggregate demand curve.

Marshall laid down that the entrepreneur "endeavours to employ each agent up to that margin at which its net product would no longer exceed the price he would have to pay for it." ¹ This is true alike of the monopolist and the competitive entrepreneur if the "net product" is valued in the right way. Where the sources are many, value of the net product can be given its face meaning, viz. the price of the x th unit, when x units are produced. In other cases the value of the net product must be taken to be the difference between the price of x units when x are produced, and the price of $(x - 1)$ units when $(x - 1)$ are produced. Where there are many sources both interpretations yield the same result. Consequently the second interpretation has general application. The increment of aggregate demand curve shows the total price of x units less the total price of $(x - 1)$ units for all values of x . When the sources are many and the demand for the products of a source is shown by a horizontal line, the demand curve and the increment of aggregate demand curve for the product of that source are co-incident.

In the short period a monopolistic source may obey the law of decreasing supply price. In Fig. 2, KC_m intersects DD'' only at a point where marginal costs are falling. In this case the monopolistic source is suffering from excessive capacity. If the demand is steady and the fixed equipment of the monopolistic source is adjusted to that demand, it will *probably* obey the law of increasing costs in the short period, since marginal costs increase in the neighbourhood of optimum output (see Fig. 1). In the long period a monopolistic source may well show decreasing supply prices, since in the long run equipment is adjusted so as to produce a normal supply at the optimum point for that equipment, and the average total cost at that point may be smaller with a large than with a small equipment.

If the number of sources is greater than one but not great, it is difficult to determine the kind of demand with which each source is confronted. Variations in its output produce an

¹ Marshall, *Principles of Economics*, 8th ed., p. 406.

appreciable effect on price, and consequently the demand for that output cannot be represented by a horizontal straight line; the demand curve and the increment of aggregate demand curve for the products of that source diverge; all sources may in this case yield an increase of output at decreasing supply prices in the short and long periods.

III

In recent discussions the old distinction between agricultural industry as subject to decreasing returns and manufacturing industry as subject to increasing returns has been lost sight of. Was it without foundation? Let us now withdraw an assumption made at the outset, that an industry can obtain its factors at a constant supply price, and suppose that an industry uses an appreciable fraction of the factors of production available. The value of this supposition depends on the definition of "an industry." Specific industries may be lumped together and a generic industry, like agriculture, may be considered as a unit. The larger the scope of an industry the more reasonable is it to suppose that the prices of the factors which it uses are influenced by variations in its demand for them. Different industries mix the factors of production in different proportions. Let us call the proportion in which the factors of production A, B C . . . are mixed in use at the margin in national industry as a whole $a : b : c : . . .$ This proportion should be a weighted average of the proportions proper to each industry at the margin of each. Any particular industry which uses the factors in the proportion $a : b : c . . .$ at its own margin can draw to itself increasing supplies of the factors at a constant price. If the total supply of the factors is fixed, an increase of output by such an industry does not alter the relative scarcity of the factors. But if an industry using the factors in the proportion $a + x : b : c : . . .$ expands, it can only get increasing quantities of A at an enhanced price in terms of B, C . . . But since, *ex hypothesi*, it uses more than an average amount of A, it can only get an increase in the sample of factors required for a unit increase of its output at an enhanced price. No doubt by the law of substitution x will be reduced in consequence of the expansion of this industry; but not to zero. An increase in the supply price of the factors required will raise the marginal cost curves of all sources; consequently the supply price of the product will on this account alone rise in response to the rise of demand for it.

Under this head it follows that every industry which uses an

appreciable fraction of the factors of production, unless it be an industry using them at the margin in the proportions of $a:b:c:\dots$, obeys the law of increasing supply price. The curve of increasing supply price will be less elastic, the greater the industry in proportion to the whole of national industry and the greater $\frac{x}{a}$.

This analysis seems to clear up the problem of the old classical distinction between agriculture and the manufacturing industries. If A is land, and $a+x:b:c:\dots$ the proportion in which the factors are mixed at the margin in agriculture as a whole, $\frac{x}{a}$ is clearly large. Agriculture as a whole is thus markedly subject to increasing supply price. But the law of returns in agriculture is only a particular instance of the general principle.

Stress has often been laid on the inelasticity of the supply of the factor land. If it could be shown that the supply of land is less elastic than that of labour and the other factors, we should have an additional reason for expecting increasing supply prices to prevail in agriculture (as a whole). But it is by no means clear that the supply of land is less elastic. If the more familiar concept of the demand schedule be used, the demand of land-owners for income in exchange for land has, if non-agricultural uses of land be ruled out, unitary elasticity. The amount of land spent in obtaining this income is constant, viz. the national supply of land. Little is known of the corresponding demand schedule of labour for a livelihood. It is not unreasonable to suppose it to have less than unitary elasticity. We no longer expect the population to expand in response to higher wages; and as wages rise the working day is reduced. In terms of supply this means that, while as rent rises the total supply of land remains constant, as wages rise the total supply of labour may fall. It is probable, therefore, that the analysis of the text provides a better justification for the classical treatment of agriculture than any reference to the inelasticity of supply of land.

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LABOUR TRANSFERENCE AND THE UNEMPLOYMENT PROBLEM

THE post-war unemployment problem has been complicated by the tendency of the newer industries to become localised in the south of England; for this has impeded the mobility of labour and has led to the concentration of unemployment in those areas in which the older trades are situated. It seems probable that while this movement may be partly attributed to temporary and artificial advantages attaching to southern sites, it represents a fundamental tendency in industry, and that during a time of rapidly changing technique such as the present, the traditional centres of industry are unlikely, for various reasons, to attract new trades or fresh units in old ones. If this is so, and as changes in localisation producing serious economic and social losses have been, and are likely to be, recurrent, it is useful to inquire whether this tendency can be beneficially counteracted by some form of conscious and corporate control over localisation. The experience of one of the older districts may throw some light on the problem.

There is one great industrial area which has not suffered severely from the unemployment which has afflicted the rest. It has witnessed the decline of many of its ancient industries since 1914, but, unlike the other great centres, it has succeeded in attracting a considerable share of the new and developing industries. Furthermore, this industrial area has formerly passed successfully through periods of transformation in its activities and has shown to a remarkable degree adaptability and resilience in the face of changing economic circumstances. The area in question is Birmingham and the Black Country. In 1870 its industries consisted of coal-mining, iron production and a host of hardware trades. In Birmingham itself there was no staple industry; but a multitude of comparatively small manufactures flourished, of which the chief were the jewellery, button, gun and brass trades. The great depression which began in 1874, however, produced permanent changes in the activities of the area. The exhaustion of its raw materials and the advent of the new steel struck down the coal trade and the great iron

industry; while the growth of foreign competition and changes in national habits and in productive methods brought sudden decline to many of the small metal trades. In several of them there has been a progressive decay up to this time. Yet the district has retained its position as one of the leading centres of industry, and the labour displaced from its former trades has succeeded in finding other employment with comparative ease. This was possible because many of the new manufactures which have arisen during the last few decades have come to be centred in the area. Of these I need only mention the cycle, motor, rubber, electrical, machine-tool, artificial silk, aluminium castings and certain of the food and drink trades. The war completed the destruction of several of the older manufactures; but the newer industries have progressed so as to absorb a large part of the displaced labour, and since 1920 the percentage of unemployment has been considerably less in the West Midlands than in any other great industrial centre. In fact, the area has effected a transference of labour from old to new trades on an enormous scale—a remarkable achievement in view of its geographical position and of its dependence on other districts for materials. Alone of the old manufacturing centres, it has escaped from the new tendency in the localisation of industry.

Since its success has been bound up with its ability to attract the new industries, it may be asked to what this ability may be attributed. No doubt several influences have been at work; but the main influence is to be found in the fact that Birmingham and District throughout its history has been a centre with a highly diversified industrial life, and has possessed, in consequence, a wide variety of labour and of technical skill. The multiplicity of its interests brings the district into contact with the industrial activities of the nation at a great many points, and thus places it in a position of advantage for attracting or developing any new trade which may arise. This advantage is particularly evident at the present time, when the advancing trades are concerned with highly finished or highly composite goods; for each of these manufactures requires a supply of many different kinds of skill and technical knowledge. Further, manufacturers who are operating in a district with a varied industrial life, where one trade or another is always changing its methods or its markets, are likely to be more flexible and adaptable, and less inclined to regard their present activities as settled by laws of nature, than those persons who live in an area dominated by one trade. I should infer, then, that an area with a highly

diversified economic life is capable of weathering periods of transition with greater ease than a more specialised centre.

It is not suggested that, when new trades arise in a diversified area, the problem of the maldistribution of labour does not arise, but only that its seriousness is minimised. While industries have been rising and falling in the West Midlands, it has been possible for brass-workers to find employment in the cycle factories for gunmakers and woodworkers to secure remunerative employment in the engineering trades, for jewellers to take up gauge-making, and for penmakers to turn to the production of fine stampings. But a wholesale transference of adult labour from decaying to advancing trades can never take place without some unemployment and lowering of standards during a period of change. A skilled watchmaker, for example, was not likely to secure equally remunerative employment in the cycle and motor factories. But where the diversified area with its capacity of attracting new industries presents advantages over specialist centres lies in the fact that the former offers more opportunities to fresh entrants into industry. It has been shown that changes of considerable magnitude can be made in the distribution of the labour force in a short space of time merely by the failure of decaying trades to replace their wastage by recruitment. An area with a multiplicity of manufactures soon finds that those which are unable to support a high wage-level quickly decay, since young people are attracted to occupations which offer better prospects. In a word, the industrial activities of such an area respond rapidly to any change in economic forces. Both its workers and its employers are likely to be alert to seize new opportunities as they arise, and there is no question of the life of an industry being prolonged merely by means of a progressive fall in wages. Trades which are threatened with extinction must either reorganise or go, and the stimulus to do this comes sooner and more strongly in diversified areas than in specialist centres, where other measures may be taken to meet an alteration in economic circumstances, and where employers are loath to acknowledge the signs of permanent change. In districts of the latter type, such as some of the coal-mining areas, which have failed to attract the new trades, the industrial life is involved in a vicious circle of cause and effect. Because there are no alternative employments in the neighbourhood, the recruitment of young workers by the advancing trades is impeded and they are forced into the decaying industries. The under-employment and low wages, both of them and of the adult members of their

families, which result from this, produce a deterioration in the quality of the labour force which, if protracted, will ultimately render the areas unsuitable for the establishment of new trades.

The adaptability shown by the West Midlands has not been equally shared by all sections of the area. If we compare, not the whole district with others, but particular towns within the same area with one another, we find additional evidence in support of these conclusions. While Birmingham and Wolverhampton have been distinguished by the multiplicity of their trades, several other places in the neighbourhood, though separated by a very few miles, have been specialist in character and have been much less adaptable. Consequently, when the flint-glass trade began to decay during the 'seventies, the labour force engaged in that industry diminished much more rapidly in Birmingham than in Stourbridge, where glass-making was the chief industry. The reason for this was, that in Birmingham there was much competition among the multitude of industries for clever youths, so that the decaying trades failed to attract them; whereas in Stourbridge the lack of alternative occupations of the same class kept large numbers attached to glass-making in spite of chronic under-employment. In the same way, on the decay of the saddlery and harness trade, the Birmingham firms soon closed their factories or turned to the production of other classes of leather goods, and the workers became absorbed in fresh employments. But in Walsall, where saddlery and harness was the staple manufacture, the decline in the size of the labour force was much less rapid. Another instance is provided by the hand-wrought nail trade, which fought a long struggle against the competition of the cut-nail and wire-nail industries. The workers in this unfortunate handicraft suffered severely from under-employment and from falling wages, and yet, although the trade was driven out of the centres with a diversified life, the numbers engaged declined very slowly indeed during the second half of the nineteenth century. This, again, was because much of the manufacture was conducted in towns and villages which afforded no other openings to boys and girls seeking employment. And immobility at that time could not be attributed (as much of the post-war immobility has been) to trade union restrictions in other trades or to unemployment insurance. During the post-war period the failing industries have been unable to resort to wage reductions to the same extent as formerly, and the unfortunate position of the specialist as compared with the

diversified centres is illustrated by the much higher percentage of unemployment in the former.

Another interesting point which emerges from this investigation into the West Midlands is that a distance of only a few miles separates the centres of high unemployment or low wage rates from those with superior standards in these respects, and this immobility between the different sections of the area has been noted throughout its recent history. It is evident, then, that even to-day the mobility of workers (including new entrants into industry) may be restricted by what appears to be an insignificant barrier of distance. I suggest that it is not only the cost of travelling between home and the place of employment, or the expense of moving the residence, which is responsible for this, but that a population bred in the atmosphere of one trade is less alert to seize fresh opportunities than people who find around them the stimulus of a varied industrial life. Recent investigations into the cotton trade seem to bear this out. In that manufacture, in which to a large extent towns specialise in particular classes of yarns and fabrics, it appears that there has been no significant movement from the more depressed towns in the American section to those which, during the post-war period, have been more prosperous.¹ In this connection it is worth while pointing out that, even in the depressed areas, the large towns have suffered less from unemployment during the post-war period than the smaller places. This has been explained on the ground that in the great cities a large proportion of the population is engaged in "sheltered" occupations. It is, however, doubtful if this is sufficient to account for the great disparity which exists between the unemployment percentages of the larger and smaller places in the same area. It is possible that since the larger towns have usually a more varied industrial life than the smaller places in relation to the size of their respective populations, the former show an alertness and a capacity for adjustment to new conditions of which the latter are incapable.

I have no space to give further illustrations in support of my argument and I must proceed to the conclusion to which these remarks have led. I have argued that the question of localisation has a very close bearing on the problem of labour resettlement. A prolonged study is obviously required before any definite conclusions could emerge; but there seem strong reasons for supposing that a country whose industries were carried on in

¹ J. Jewkes, "The Mobility of Labour in the Cotton Industry," in the *ECONOMIC JOURNAL*, March 1928, p. 135.

highly diversified centres would find the recurrent problem of transference less difficult to face than a country where the industrial areas were of a specialist character. The former would tend to have an alert and an easily adaptable population, and in it new manufactures as they arose would be likely to grow up in existing industrial districts. A change in the direction of economic development could thus be effected without producing a prolonged period of mal-distributed labour. One must not, of course, ignore the advantages which local specialisation is supposed to confer. For some trades a certain degree of concentration is probably inevitable; but it is arguable that the economies derived from local specialisation have been exaggerated, since such a policy cannot take account of the ever-changing character of economic life and of the great social and capital losses caused by periodic industrial migrations.

It may be objected that, even if these arguments are correct, the location of industry is determined by economic forces which we cannot control. But this is to be doubted. Certain general influences exert themselves to produce from time to time definite trends in localisation; but the selection of the actual sites for industry in the past has been largely haphazard. Specious arguments have been advanced to explain how trades have come to be located in the areas in which we now find them; but if one tries to relate these general explanations to the history of the pioneer firms in the different industries, one is left with a feeling of intense scepticism. Frequently a trade has been localised in one area rather than in another through chance, or through temporary advantages attaching to a particular site. Such developments may have been inevitable in the past; but nowadays, when new concerns are usually launched on a great scale, a long view is surely necessary in determining their localisation, and some form of public control is certainly required. It is not generally recognised how wasteful in the utilisation of labour is the present unco-ordinated method of choosing sites. In some areas the trades are such as require male labour but provide little opportunity for women. In others the reverse is largely the case. It is true that occasionally firms do select their sites in a way which promotes the most economical use of the nation's labour force. Thus, one of the first artificial silk factories in Great Britain was established near a coal-mining district where it could draw on a supply of female workers who had previously no occupation. But subsequent developments in this and in other new trades have been remote from areas with similar

characteristics. Consequently, a great supply of potential labour remains untapped, or is drawn into employments with low remuneration to the detriment of industrial progress, of family earnings and of general efficiency. And in times of transition this wastefulness is the more pronounced.

The conclusion which I would draw from these arguments is that, if present and future changes in the direction of industrial development are to be met successfully, a co-ordinated policy concerning the localisation of the various new industries should be worked out. Great Britain has experienced changes of this character in the past. The post-war period affords another example of them, and, if economic progress is to continue, they will be recurrent. These periods are marked by a heavy burden of unemployment which is to be attributed partly to the slowness of manufacturers in diagnosing the new position and in making efforts to satisfy fresh wants, and partly to new influences on the localisation of industry which appear at such times. In these periods of rapidly changing technique there is a tendency for new trades to grow up in centres remote from the older industrial districts. All the older areas, however, do not suffer in the same degree. It seems that those with a wide range of activities are able to face such periods with equanimity, since they are more flexible, more alert to seize fresh opportunities and more capable of attracting new trades than the specialist centres. Thus, in a country possessing diversified centres the tendency for new trades to go to new centres would be largely checked and the recurring problem of labour transference would be facilitated. It would seem desirable, therefore, to frame a national policy concerning the localisation of industry with the object both of satisfying the immediate requirements of employers for labour, sites and materials, and of building up industrial areas which would be less vulnerable in times of change than our specialist centres have been.

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THE AGRICULTURAL CREDITS ACT, 1928

As compared with his foreign and colonial competitor the English farmer has in the past suffered the following disadvantages :—

(a) Apart from the Lands Improvement Company which advances money repayable as an annuity extending over forty years on the security of a rent charge under the Land Improvement Acts, 1864–99, there was no public institution such as the Credit Foncier de France or the Federal Land Banks in the U.S.A. specially organised in England to finance agriculture. The General Land Drainage and Improvement Company was formed by Private Act of Parliament in 1849, the Lands Improvement Company by Private Act in 1853, and the Land Loan Enfranchisement Company in 1863. These companies worked under the Improvement of Land Acts, 1864 and 1899, and under special Acts of 1849, 1853, 1855, 1859, 1860, 1863 and 1920. All the Land Improvement Companies are now amalgamated with the Lands Improvement Company, 58 Victoria Street, London, S.W.1. They were intended to finance principally improvements made by tenants for life under the Settled Land Acts and could advance money for periods not exceeding forty years, but only for the general improvement of land, not for the purchase of land by farmers. The Lands Improvement Company during its existence has nevertheless advanced over £14,000,000 and is still doing a flourishing business. The Farmers' Land Purchase Company was formed in 1920 to work in association with the Lands Improvement Company to lend money to farmers to enable them to purchase their holdings. Since its activities are now overlapped by the new Agricultural Mortgage Corporation, it does not do much business, though it is still in existence.

(b) The inability and disinclination of joint-stock banks to make long-term advances. In a loan census made by the big five joint-stock banks in 1923 for the information of the Ministry of Agriculture, it appeared that of a total of £46,500,000 traced as having been lent to agriculture, £26,000,000 represented loans made for the purchase of land, and the remainder, £20,000,000 odd, to meet current expenditure. Money advanced by the banks

for the purchase of land and for permanent improvements was in most instances secured by a legal mortgage of the freehold or leasehold purchased or improved. The banks were prepared as a rule to renew these advances, which were made usually at the rate of 1 per cent. above Bank rate minimum 5 per cent. But they were under no obligation to do so indefinitely, and in view of their obligation to keep their positions liquid, they in most cases reserved the right to withdraw loans on six months' notice at the longest. Apart from an improvement loan obtained from the Lands Improvement Company, a farmer obtaining what he contemplated as a long-term credit was not faced with any previously arranged plan of redemption over a definite period such as is provided in a long-term sixty-year redemption loan now obtainable from the Agricultural Mortgage Corporation.

(c) Lack of co-operative organisation among farmers. There are a certain number of Agricultural Societies registered under the Industrial and Provident Societies Acts, 1893–1928, but they could not issue debentures for the purpose of raising credit for their individual members by creating a charge on personal chattels, unless the debentures were registered as bills of sale. They may now issue debentures under Sec. 14 of the Agricultural Credits Act, 1928, and such a debenture if registered at the Central Office of the Registry of Friendly Societies ranks as an agricultural charge similar to the charge given by an individual farmer.

(d) The fact that a farmer had usually no better security to offer for a temporary loan than a bill of sale over his growing crops and live-stock. A bill of sale in England carries with it a certain degree of social stigma analogous to bankruptcy which does not attach to the granting of a chattel mortgage in the U.S.A. or similar charge on movable property in other countries. This social stigma is something which legislation cannot altogether eradicate, and it cannot prevent the same social stigma attaching to the creation of an agricultural charge under the new Act. The Agricultural Credits Act, 1928, does, however, minimise its effect by making it a summary offence under Sec. 10 to publish particulars of agricultural charges in any newspaper.

The defects summarised above in the organisation of the agricultural industry in this country before 1927 had been obvious for many years, but legislation in favour of agriculture was after 1921 rendered imperative by reason of—

(i) The world depression in trade and the fall in the price of agricultural produce after 1921, which rendered farming under existing conditions unremunerative.

(ii) The fact that during and immediately after the war many farmers had agreed to purchase their farms at what turned out to be top prices.

(iii) The repeal by the Corn Production Acts (Repeal) Act, 1921, of the Corn Production Act, 1917, which by removing the bounties on home-grown wheat let in foreign wheat in competition with home-grown grain.

(iv) The fixing of farm labourers' wages under the Agricultural Wages (Regulation) Act, 1924, by committees at rates which in many districts made it impossible for farmers to cultivate less fertile land with any hope of profit.

(v) Traders and merchants were equally hit by the same adverse circumstances and could no longer give extended credit in respect of seed and agricultural machinery bought.

(vi) The refusal of the electorate to give the Conservative party a mandate to impose protective duties on food-stuffs.

(vii) The Milk and Dairies Order, 1926, which required farmers to make certain sanitary improvements in their dairies to conform to regulations.

(viii) After 1926 the burden on former copyholders to pay compensation to the lords of the manor for enfranchisement of copyhold land under the Law of Property Act, 1922.

A number of suggestions and recommendations were made on the subject, notably in the Majority and Minority Reports of the Agricultural Tribunal in 1924. It was hoped that some benefit would be derived from the Agricultural Credits Act, 1923, which was passed to enable the Public Works Loan Commissioners to make advances to any approved association to enable it to lend money on mortgage at a rate not to exceed that prescribed from time to time by the Treasury. Under the Act the Ministry of Agriculture was to promote the extension of agricultural societies registered under the Industrial and Provident Societies Act, 1893, which were to lend money to members for a period not exceeding five years for such agricultural purposes as the Minister might approve. Certain alterations were also made in the provisions of the Land Improvements Acts, 1864 and 1899, to enable the Lands Improvement Company to advance at a rate not to exceed such rate as the Minister prescribes. The Agricultural Credits Act, 1923, being practically a dead letter, the Ministry of Agriculture decided to carry out a complete investigation of credit conditions obtaining in agriculture, and for this purpose appointed a departmental committee under the chairmanship of one of its officers, Mr. R. R. Enfield, who published the "Enfield Report"

in 1927. The report brought the joint-stock banks, the Bank of England, the Treasury and the Ministry of Agriculture into conference with a view to removing the disadvantages described therein. It took these diverse interests some time to agree upon proposals, and the Agricultural Credits Act, 1928, did not become law until August 3, 1928. Instead of making further additions or alterations in the existing powers of the Lands Improvement Company, a new institution was founded under the provisions of the Act called the Agricultural Mortgage Corporation. The field of operations of the Agricultural Mortgage Corporation to some extent overlaps that of the Lands Improvement Company, which has now been in existence eighty years. The procedure for obtaining an improvement loan from the Agricultural Mortgage Corporation is very similar to that for obtaining an improvement loan from the Lands Improvement Company. Lord Clinton is a director of both, and the Agricultural Mortgage Corporation has profited greatly by the past experience of the Lands Improvement Company, which has freely co-operated with it, although in certain respects they are in competition. The Lands Improvement Company has never received a subsidy from the State, whereas the Agricultural Mortgage Corporation has received a subsidy of £10,000 a year towards its upkeep and a loan without interest of £650,000 for sixty years. Accordingly, the Lands Improvement Company cannot make improvement loans on quite the same advantageous terms. The Agricultural Credits Act, 1928, is designed to enable the Agricultural Mortgage Corporation to lend on advantageous terms to landowners, particularly to farmers, for purely agricultural purposes. Whereas the Lands Improvement Company may advance money for the redemption of tithes, for developing land, for building of residential houses, etc., and extinguishment of manorial incidents under the Law of Property Act, 1922, the Agricultural Mortgage Corporation has no such power. On the other hand, the Lands Improvement Company is restricted to making improvement loans and cannot advance money on long term mortgage as is done by the Agricultural Mortgage Corporation. Another distinction is that the Lands Improvement Company has no direct connection with any of the banks and is approached direct by the applicant for a loan. The Agricultural Mortgage Corporation will deal with an applicant only through one of the shareholding banks, and its activities are restricted to making advances on land in England and Wales. The Lands Improvement Company may advance money for any of the purposes for which it may lend money on the security of land

in Scotland. These comparisons show that though the Lands Improvement Company may find its operations curtailed in some directions, it will probably extend them in others, so that there is really ample scope and need for both institutions.

The Agricultural Mortgage Corporation

The Agricultural Mortgage Corporation, Ltd., Stone House, Bishopsgate, E.C., was formed under Sec. 2 of the Act and registered under the Companies Acts, 1908-17, on 7th November, 1928, as a company limited by shares, having a share capital of £650,000 divided into 650,000 shares of £1 each. The capital was subscribed at par by ten shareholding banks :—viz. the Bank of England, Barclays Bank, the District Bank, Glyn Mills & Co., Lloyds Bank, the Manchester and County, Martins Bank, National Provincial Bank, Westminster Bank and Williams Deacons. It was contemplated that the share capital should be the same as the maximum amount which the Treasury under Sec. 1 may lend free of interest, viz. £750,000, but the Midland Bank did not participate in the scheme, and therefore the amount advanced by the Treasury is £650,000, which remains the maximum unless the share capital is increased. Counting money as being worth 5 per cent., this is equivalent to a subsidy of £32,500 per annum for sixty years, in addition to which it receives from the Treasury under Sec. 1 (1) (ii) £10,000 per annum for ten years towards the cost of its administration. Even if the capital is increased the advance from the Treasury under Sec. 1 (1) (iv) may not exceed £1,000,000. The interests of the State in the Agricultural Mortgage Corporation while its loans are outstanding are safeguarded by the provisions in the Act which require that no alteration may be made in the Memorandum or Articles of the Corporation without the consent of the Minister of Agriculture, and at least one director shall be nominated by the Treasury. Sir George Barstow, formerly of the Treasury and Government, Director of the Anglo-Persian Oil Company was the first director so appointed.

The Corporation began business on January 14, 1929. It obtains its funds (i) from its capital £650,000 subscribed by the ten shareholding banks, (ii) from the loan of £650,000 from the Government, and (iii) from the sale of debentures which are guaranteed by the Government, and by Sec. 3 are made trustee securities. £5,000,000 5 per cent. Debenture Stock, 1959-89, was issued on June 25, 1929, at par. The Debentures are to be redeemed by a cumulative sinking fund provided for in the Cor-

poration's Memorandum and Articles. The intention expressed in the preamble to the Act and in Sec. 1 is that the Corporation shall lend sums at rates of interest not higher than required to meet its expenditure and pay a dividend of 5 per cent. to the ten shareholding banks. In other words, the primary test of the success of the Corporation is not to be the profits which it makes for the nine shareholding banks, but the amount of the advances which it makes at low rates of interest to agricultural holders.

After paying a dividend of 5 per cent. and making provision for reserves as required by the Memorandum and Articles of the Corporation, any surplus profit will be utilised in making further loans on terms most favourable to borrowers and in reducing the interest paid by borrowers on existing loans.

Long-term Loans up to sixty years made by the Agricultural Mortgage Corporation

The applicant for a long-term mortgage loan must make his application through a branch of one of the shareholding banks. Under Sec. 2 (3) (c) of the Act and Clause 1 (a) of its Memorandum, the Corporation may not advance more than two-thirds of the value of the mortgaged property as estimated at the time of the loan. As the Corporation has obtained the bulk of its funds by the sale of debenture stock to the public, which has been made a trustee security with the partial guarantee of the State, it was thought undesirable to increase the ratio lest the market price of the debentures might be affected. The applicant has to pay the costs of the valuation whether the loan is made or not. The fees paid to valuers employed locally by the branches of the shareholding banks are settled on a prefixed scale according to the amount of the valuation, with a minimum fee of five guineas plus expenses. If it becomes apparent to the valuer that it will be impossible for him to recommend the advance, he does not as a rule complete his valuation and his fee is correspondingly reduced. (See *Times*, March 20, 1929.)

If the Manager of the Agricultural Corporation is satisfied, he instructs the branch forwarding the application to have the title searched by a local solicitor. The Corporation pays the cost of investigating the title, but the applicant pays the stamp duties on the mortgage.

A mortgage deed is then prepared which shows in a schedule on the back how the loan is to be reduced by equal half-yearly instalments. The Corporation has an account at each of the

Head Offices of the ten shareholding banks, and the money is put at the disposal of the applicant by debiting the Corporation's account and crediting the account of the local solicitor, who pays it over when the mortgage has been duly executed and the charge registered. The applicant is generally required to sign a standing order for debiting the amounts of the half-yearly instalments to his account and crediting them to that of the Corporation, so that repayment on the prefixed redemption scale as set out on the reverse of the mortgage deed is automatic.

Land Improvement Loans made by the Agricultural Mortgage Corporation

Under Sec. 1 (b) of the Act, the Corporation has power to make land improvement loans under the Improvement of Lands Acts, 1864 and 1899. The purposes are taken from the schedule of the Land Improvement Act, 1864, omitting those improvements which do not affect owners of agricultural land.

The normal procedure is for the applicant to make application through a branch of a shareholding bank on a " B " application form. He forwards this with plans and specifications of the proposed improvements. The Manager of the Corporation, after thoroughly considering the proposed scheme, intimates, via the branch of the shareholding bank, whether the Corporation will be prepared to lend the money in the event of the applicant obtaining a land charge, and what will be the terms of the loan and the period of its redemption. If the terms of the proposed loan are acceptable to the applicant, the application and the plans and specifications are forwarded to the Ministry of Agriculture. The Minister of Agriculture then sends down an inspector, who reports whether the proposed improvements will effect a permanent increase in the yearly value of the land exceeding the yearly amount proposed to be charged thereon in respect of the improvement applied for. The applicant has to pay the costs of the investigation of the Ministry of Agriculture, and the Ministry may demand security for such costs before the investigation is begun. If the Ministry is satisfied, it sends a letter to the Corporation authorising it to prepare a Provisional Order for the grant of a rent charge, triplicate copies of which are sent to the Ministry. The Provisional Order creates in favour of the applicant a right to an absolute order on completion of the improvements in accordance with the scheme to the satisfaction of the Ministry. There is no need to investigate the applicant's title, and he is only required

to forward a statutory declaration that he is a person entitled to raise a rent-charge. The Provisional Order is registered by the Agricultural Mortgage Corporation as a caution in the Land Registry, Lincolns Inn Fields, and a mortgage deed is prepared similar to the deed used for the long-term sixty-years redemption loan, save that an improvement loan may not outstand in any case more than forty years. No charge is made by the Corporation for considering the application, and the expenses, etc., which have been paid to the Ministry may be included as part of the money advanced.

The work having been completed and the Ministry's inspector having satisfied himself that the work is in accordance with the plan and specifications, the Ministry of Agriculture makes the Provisional Order for a rent-charge absolute, and a certified copy of the absolute order is sent to the Corporation, which registers it as a Class A charge on the registry. The loan is repaid by equal half-yearly instalments as set out in the schedule to the charge. The period is estimated to cover the life of the improvement, and normally an applicant is not allowed to pay off odd sums at irregular intervals, but if he prefers at any time to redeem the whole of the loan outstanding, he is allowed to buy up an equivalent amount of Corporation debenture stock and surrender it at par.

Short-term Credits obtained from Banks on the Security of an Agricultural Charge

Under Secs. 5-9 of the Act a farmer may now obtain a short-term credit on the security of a fixed or floating charge which is not a bill of sale and ranks in priority to a bill of sale. A farmer who creates a floating charge is in a position analogous to a company which has issued a series of floating debentures. He is free to deal with the property charged, but must use the proceeds of any charged property sold to purchase fresh farming stock, which becomes subject to the charge, or must pay the proceeds into his account.

A farmer who creates a fixed agricultural charge on his farming stock is in a similar position, but cannot sell property subject to the charge save in order to buy property which is substituted, and must in all instances pay the proceeds directly into his account.

If he misapplies the proceeds he makes himself liable to be prosecuted for an indictable offence, and if the subject-matter of the charge is destroyed he must pay over any insurance money or

compensation from the Ministry of Agriculture under the Diseases of Animals Acts, 1894-1927, or Destructive Insects and Pests Acts, 1877-1927, as though it was money received by way of sale to be accounted for in accordance with the conditions of the charge.

An applicant for a short-term loan secured by a fixed or floating agricultural charge is not restricted to making application to one of the nine shareholding banks of the Agricultural Mortgage Corporation as in the case of long-term and land improvement loans. The bank must, however, be one of the approved banks included in a list kept by the Ministry of Agriculture under Sec. 5 (7). All banks which have so far applied have been put on the list. These include the bank owned by the Wholesale Co-operative Society, and several Scottish banks which have branches in England. The apparent intention of the Act was that live-stock should be covered by a floating charge, and assets of a more durable character, such as milling machinery, were to be covered by a fixed charge. In practice bank's charges are expressed always as both fixed and floating charges. It takes a fixed charge on all the agricultural assets specified in the schedule and a floating charge on all agricultural assets, present and future, belonging to the farmer. The farmer at the same time that he executes the charge is asked to fill in an A.C. 1 form (or, in the case of the borrower, being an agricultural Society giving a debenture under Sec. 14, an A.C. 2 form). The manager of the branch forwards the form and the charge to Head Office, where it is considered and sanctioned by the Branch Inspection Office to which the branch belongs and by the Joint General Managers. If the loan is sanctioned, the A.C. 1 form is sent to the Land Registry for registration within seven clear days of execution. The agreement is not regarded as complete and the money is not placed at the disposal of the farmer until notice has been received from Head Office that the loan has been sanctioned and the charge registered. The charge is exempt from stamp duty, and the only expense incurred by the farmer is the 1s. registration fee. On the farmer's repaying the loan the charge is cancelled and returned to the farmer and a memorandum of cancellation registered, for which another 1s. fee is charged.

Special provisions were inserted in Sec. 12 of the Act to prevent a bank which was unsecured or partly secured in respect of advances made before August 3, 1928, when the Act came into force, obtaining an unfair advantage over other creditors by taking a floating charge to cover the advances then outstanding and any subsequent advances. The section is so curiously worded

that it may mean that if a bank has lent money which was outstanding on August 3, 1928, even though it has been subsequently repaid, the bank will still have to deduct it from the amount secured in respect of any subsequent advances. Consequently branches have been instructed by the Head Offices not to lend any money on agricultural charges to farmers who owed any considerable sum to the bank on August 3, 1928. As Sec. 12 remains in force until January 1, 1931, very few short-term advances will be made until then.

L. LE M. MINTY

REVIEWS

The Social and Economic Development of Scotland before 1603.

By I. F. GRANT. (Oliver and Boyd. 1930. Pp. xii + 594. 21s. net.)

MISS GRANT'S book may be compared in several respects to Kant's *Prolegomena*. In each case there is a new departure—with Kant "towards any future metaphysic," and with Miss Grant towards a future economic history of Scotland. For the author herself would be the first to concede that her book is not such a history, though it is the necessary preparation for it. During a long period writers on this subject were content to take speculation as fact or to accept the mere assertions of their predecessors as if they were facts; indeed up to the end of the nineteenth century writings in this field were an interesting survival of the uncritical attitude of the monkish chronicles. Later, the position was further confused by one tendency towards assuming that English development at early times was repeated in Scotland, or by the contrary attitude that, since it was discovered to be different in some respects, it was altogether different. Meanwhile the work of a number of societies in printing manuscripts, and the publication of *Calendars of State Papers*, were gradually providing material, though even at the present time much that the economic historian requires remains unpublished. A curious coincidence emphasises this point. In the same month that Miss Grant's book was issued there also appeared the "*Copiale Prioratus Sanctiandree*" a substantial volume of 527 pages printed from a MS. discovered by Professor Baxter at Walfenbüttel. The fact that it is one of a group of nine Scottish MSS. which had been "borrowed" shows that Scottish manuscripts wandered as far as Scots Soldiers; and it will be necessary eventually to extend the search for Documents to the Continent.

It follows that Miss Grant has been confronted with a most difficult problem. She has to present a picture, based on the available evidence, which will have some form and at the same time will not strain that evidence. In doing so she contrives by suggestion, rather than explicit statement, to show the great number of places in which more light is required before the way

of the student can be discerned, even faintly. This requires a high degree of skill, and, as might be expected from the author of *Everyday Life on an Old Highland Farm*, she undertakes her solution in the spirit of regarding "the arrangement of historical matter as much more an art than a science." Also, during the period covered, the great problem of Scottish social and economic development was concerned with the possession of land; and, as regards primitive Scottish agriculture, she has absorbed not merely the technique but the essential spirit—"that strange persistence of more ancient things that survives dumb and recessive and yet part and parcel of the life-stream of the race." Further, one cannot but be impressed by the wide range of Miss Grant's sympathy and insight. At one end of the scale important confirmatory evidence on a point of considerable moment is obtained by a comparison of Highland and Lowland fairy tales: at the other, after quoting evidence as to certain forms of organisation, she is careful to state that there are not sufficient instances to establish a general conclusion. It is highly skilled craftsmanship to make a story of wonderful fascination to Scotsmen, and one which cannot be neglected by any who treat economic and social development comparatively, and at the same time to impress on the reader how much remains to be discovered before the picture can be seen with a due balance of light and shade. In this respect the book seems to mirror the troubled soul of the people in the period which it describes—ceaseless effort and striving, yet with the ultimate result in the far distance, only at most to be hoped for.

The significance of Miss Grant's brilliant work thus lies in its suggestiveness for the future. Especially it makes one think, and it is not to be taken as derogatory of its great merits that one wonders sometimes why, even with our present imperfect knowledge, some parts have not been treated more fully or differently. At the beginning, the era before 1057 (the beginning of the reign of Malcolm III) is described as "pre-history" and is dismissed in nine pages. In the whole source-material of history there is no part that has been so thoroughly examined as Scottish archæological remains; and, even if the results as regards economic development are scanty, much more could have been gleaned. Then "that mysterious people, the Picts," is not so mysterious after all. A good deal can, for instance, be extracted about their social conditions from A. B. Scott, *The Pictish Nation*. One would think that, if Miss Grant's sympathies are not too deeply enlisted by the Gael, she would be rather fascinated by

the task of restoring the Pictish literature, which, it is now urged, the Gaels stole, in the spiritual sense of translating it and giving it out as their own—the exact reverse of Macpherson and Ossian. Also it would provide her with an earlier case of the tragedy she sees in the fall from the golden age (relatively to the one that succeeded it) of the twelfth and thirteenth centuries. It is to be feared that the golden age was much alloyed. Thus William the Lion (1165–1214) is said to be responsible for the “law that is called claremathan,” which shows that, even already, cattle-lifting had become an institution.

An omission may be noticed, namely, that there is no reference to usury during the mediæval period. Is this accidental or is it a fact that Scotland was the only civilised country where Churchmen avoided reference to the condemnations of so many councils? Though the latter seems unlikely, should it chance to be so, the fact would be of great significance.

Yet again Miss Grant makes one think. During the period that the wealth of Britain consisted of wool and its products, how did it come that Scotland was not more prosperous?—for, relative to its total area, the amount of land specially suitable for sheep was a much higher proportion than in England. Wool was exported at a very early period. Hence the natural conditions were suitable for a highly profitable trade. The obvious explanation would probably be that the wars with England and the continual civil strife consumed the stock. The picture merits the sombre brush of Dante—the rigorous execution of “letters of fire and sword,” the coasts of Fife a haunt of pirates, the murderers of Cardinal Beaton maintaining themselves against the remnant of law in the castle of the murdered man for a period of two years, so that, as Miss Grant says, by 1587 the country was “at the nadir of lawlessness,” and a contemporary writer of the previous century exclaims, “I have seen the injuries which are done, the tears of the innocent, the helpless and the destitute, who cannot resist violence and have none to comfort them.” Yet this explanation is not altogether satisfactory, since the Church was the great flockmaster. The Church owned much more than half the wealth of Scotland. It is by no means improbable that the value of its wool was three-quarters of the whole product of the country. Now, was disorder so great that contending nobles committed sacrilege in raiding the patrimony of the Church? One scarcely would think so unless definite evidence were produced, all the more since in the English invasion of 1545, while no less than 248 towns and villages were destroyed,

the same fate was meted out to only seven monasteries and "frear houses"—though the former included the abbeys of Kelso and Melrose. One is inclined to regard the provisional hypothesis that the sheep were inferior. It is true that Hector Boethius (*circ.* 1460), Munster (1550), Ubaldini (1588) have been quoted as speaking of the fineness of Scottish wool. It seems possible that there is misinterpretation here, but one cannot speak positively. The words of the second are "nullibi melior et tenerior lana," and of the third, "non piccola parte di quella delicata et gentile." It is certain that at the end of the eighteenth century there were universal complaints of the bad quality of Scottish wool. This was attributed to deterioration of the breed of sheep. Now it appears from a *Report of the Highland Society*, associated with the names of Sir John Sinclair and Dr. Anderson, and printed in 1790, that on the mainland the original sheep were extinct and were only to be found in Shetland. These were "the kindly sheep" and the "beaver sheep"; both had fine wool, but the yield per sheep was small. The latter had fine wool only about the neck; the remainder of the body was covered largely or altogether with hair or bristles. Thus it seems as if the evidence available may be interpreted as showing that sixteenth-century accounts of the quality of Scottish wool were not untrue, but that the quantity per sheep was small. There is other evidence tending in the same direction. Accordingly, on this basis, one important cause of the slow economic progress of Scotland may have been the low yield of wool per 1,000 acres. The quality probably remained good, but the quantity was deficient—at least in part and quite possibly in the main through peculiarities of the breed or breeds of sheep.

W. R. SCOTT

The Early History of Banking in England. By R. D. RICHARDS, Ph.D., B.Sc. (Econ.) Lond. (P. S. King & Son, Ltd., London. 1929. Pp. xx + 319. 15s. net.)

Select Statutes Documents and Reports relating to British Banking, 1832-1928. Selected with an Introduction by T. E. GREGORY, Sir E. Cassel Professor of Banking and Currency in the University of London. (Oxford University Press. 1929. Vol. I, 1832-44, pp. lx + 147; Vol. II, 1847-1928, pp. viii + 391. 21s. net, or Vol. I, 10s. 6d., Vol. II, 12s. 6d.)

THESE volumes cover the infancy and manhood of banking in this country. It is true that Dr. Richards in his eighth chapter professes to give the "salient features of English banking history

in the eighteenth and early nineteenth centuries," but after 1707 his sketch is very perfunctory indeed. The history of banking under the Bank of England's monopoly, the growth of country banking, and the financing of the Napoleonic wars all require to be re-examined with direct reference to the original sources. Dr. Richards has been able to throw much light on early history by his research in documents hitherto not examined, and it is to be expected that as much illumination would be derived from a similar exploration of State and private documents of the eighteenth century, and from a collation of the extensive permanent and fugitive writings on financial topics of that period. Professor Cannan, in *The Paper Pound of 1797-1821* and in his re-issue of the Report of the Bullion Committee, and Professor Gregory, in his introduction to the new edition of Tooke and Newmarch's *History of Prices*, have provided the raw material for studying the currency problems arising out of the finance of the war with France, and in the volumes before us Professor Gregory takes up the story at a time when "British banking had already advanced some stages in the process of adaptation to a more complex economic environment." Through controversy and crisis his documents lead us to the re-establishment of the gold standard in 1925 and to the amalgamation of the note issues in 1928.

It is difficult to say enough in praise of the two works before us. Dr. Richards has had perhaps the more attractive task in depicting the emergence and gradual development of financial organisation and in narrating the early struggles of a great institution. His account is full of colour and vigour, and, once begun, it is not easy to lay the book down. Contemporary books and pamphlets, manuscripts previously not examined, the early Court Minute Books of the Bank of England (hitherto shrouded from the public gaze), "the earliest ledgers and other documents of the historic banking houses of Hoare and Child," the contemporary Minute Books of the Treasury, have been placed at his disposal or been discovered by him, and out of them he has woven a clear and succinct narrative. Professor Gregory's account is more sedate in form, but it covers such excitements as the unrestrained controversies that raged round the Bank Act of 1844, the crises of 1847, 1857, and 1866, and the finance of the European war. He has reprinted the chief Acts of Parliament, given illustrative extracts from the Reports of, and evidence given before, Select Committees, and drawn on the contemporary comments made at times of crisis by *The Times* and the *Economist*, and the whole of his subject-matter is held together by an Introduction in which,

with admirable clarity, are discussed the fundamental principles of banking which underlay all the disputes and came to the surface in times of great emergency.

Trade with the Continent led to dealing in foreign moneys and to the assignment of mercantile debts by means of the bill of exchange. By the time of Elizabeth "the merchant, the broker, the scrivener, and the goldsmith became prominent as financial intermediaries," and Gresham was the first English financier to raise Royal loans from private citizens. Wealthy merchants lent moneys to the State and carried on exchange transactions. Brokers were in part pawnbrokers, but some undertook the business of exchange and developed into bullion-dealers or into stock-jobbers who dealt in the shares of the trading companies, which were becoming numerous. The scriveners who wrote bonds or contracts acquired "an intimate knowledge of financial and mercantile transactions," and in the seventeenth century were recognised custodians of deposits for which they found employment. "It does not appear from the available contemporary evidence that the goldsmiths were outstanding figures in the London money market of Elizabethan and Jacobean times"; they were primarily jewellers and lapidaries and occasionally money-lenders.

If the scrivener was the primitive banker of the early seventeenth century, his place was taken after the Civil War by the goldsmith bankers. They received deposits on which they paid interest, made loans, discounted both inland and foreign bills of exchange, dealt in bullion and foreign moneys, and financed the warlike operations of the State. The receipt which the goldsmith gave, acknowledging the receipt of money left in his charge, developed into an assignable instrument when the goldsmith was allowed to use such deposits. It took the form of a promissory note issued by the goldsmith as a loan, and sometimes had no metallic backing; it was currency. The next step was the drawing of a cheque by the depositor on his deposit; such date at least from the 1670's. It seems unsound, however, for the author to consider that "the immediate precursors of the modern cheque" were the orders drawn on the Exchequer by officials or pensioners requesting payment of "debentures" due to them to be made to some specified persons; an assignment of salary or a direction for payment to be made to an agent is not a cheque. Houses like those of Vyner, Backwell, Meynell, Whitehall, and others were very powerful. Backwell kept deposits of other bankers and financed the Dunkirk expedition.

After the Restoration the tally for a loan to the Exchequer bore interest, and the repayment order or "order of loan" accompanying it was assignable by endorsement; such orders were frequently discounted by goldsmith bankers. "Fiduciary orders" were next issued by the Exchequer, not in acknowledgment of loans but as charges on subsequent revenue; they were, in truth, an inflation of the currency. Between 1667 and 1671 large numbers were discounted by the bankers, and the inability of the revenue to cover repayments led to the suspension of cash payments in 1672, known as the "Stop of the Exchequer." The debt due by the Crown, mostly to goldsmith bankers, was about £2,250,000, and the suspension brought many to ruin. In 1674 Charles II authorised payment of £140 000 as interest, and in 1677 the remaining debt was charged at 6 per cent. on the Hereditary Excise, each banker assigning his share *pro rata* to the depositors concerned as his creditors. This may be regarded as the beginning of the National Debt, and the amount due was ultimately extinguished in 1723. Dr. Richards deserves great credit for the discovery of two Exchequer books of account containing a large part of the transactions involved in the "Stop," and for thus clearing up the history of an event hitherto obscure.

The gross failure of the issue of paper money by an incompetent and embarrassed Exchequer turned men's minds to the establishment of some institution which would provide a sufficient supply of currency. Many plans, from 1571 onwards, were proposed for a national credit institution, varying in character from a Mont de Piété to a central bank. Gradually, they took the form of projects for a land bank, based on mortgages of real estate, and Asgill, Barbon, Briscoe, and Chamberlen promoted such banks in 1695 and 1696. Run with varying degrees of sanity and honesty, they had a brief and hectic career. Another wild-cat institution was the Million Bank with its speculations in life annuities, while the Orphans' Fund of the City of London, with its offshoot the Bank of the City of London, by speculating in Government loans brought the City's finances to the verge of collapse. Dr. Richards has gathered together much interesting information regarding this crazy quilt of finance, whose main importance is that it represented the yeasty condition of the London money market. If the metaphors are mixed it is because no plain statement can describe a situation so mixed with crankiness and common-sense.

This was no favourable *milieu* for the foundation in 1694 of the Bank of England "for the better raising and paying into the Receipt of the Exchequer the sum of twelve hundred thousand

pounds " at 8 per cent., and various attempts to give it a monopoly culminated in the Act of 1707 forbidding partnerships of more than six persons to engage in banking in England. From the early Court Minute Books Dr. Richards has extracted much curious and interesting detail as to the development of the bank-note and the cheque and as to the financing of William III's campaigns on the Continent. These need not be dealt with here. The infant Bank, however, in 1696 had to make a partial suspension of cash payment, because, while as agent for the Government it was calling in the old debased coinage, it did not receive the new coin from the Mint in sufficient quantities. But by the end of the first decade of the eighteenth century it had established its position and had undertaken the circulation of Exchequer Bills for the Government. Here Dr. Richards's history really ends.

It would be tedious to give a list of the documents in Professor Gregory's two volumes, and, in truth, a reviewer can have no excuse for copying out his author's "Contents" pages. Those in the first volume deal with the inquiries and controversies leading up to the Bank Act of 1844. These began with the triangular fight between the Bank of England, the country banks, and the joint-stock banks which after 1825 could be established outside a sixty-five mile radius from London. The modern idea of a Central Bank was then unfamiliar, and views as to note-issues were, to say the least, confused. The practice and professed principles of the Bank of England were often in conflict. To summarise the discussion here is impossible, but the first twenty-four pages of Professor Gregory's Introduction will be found an admirable guide through a land covered with thickets and thorns.

The second volume is divided into three parts. The first deals with the crisis of 1847, that of 1857, the Overend Gurney crash of 1866, the Baring crisis of 1890, and the American crisis of 1907. The second part contains documents relative to the regulation of joint-stock banks and to private note issues, while the third covers war and post-war legislation. Issues of consequence in banking policy emerged by 1858—the "relaxing power," the ability of the Bank Directors to act against their own immediate interest, the discount rate as a means of market control, the Bank as the "ultimate reservoir of credit" and the bill market, the rate of interest on deposits. Discussion of these points occupies the admirable seventh section of the Introduction.

The proper constitution of a Bank is now settled, and the ancient quarrels regarding the suitability of joint-stock banking

seem like the battles of the kites and crows. To the perusal of Professor Gregory's summary one may suggest to the student to add a reading of *The Amalgamation Movement in English Banking*, by J. Sykes, B.A., M.Com. (P. S. King & Sons, Ltd.).

"The characteristic feature, economically speaking," says Dr. Gregory, "of British banking in the three-quarters of a century before the war is the gradual elimination of the private banker and the growing size of the banking unit." The strength of the joint-stock banks lay in their ability to raise capital, and the power to expand, so arising, naturally led to the absorption of other banks. "The limit to the expansive movement of each bank is such an organisation as will represent the maximum degree of inter-local compensation of risks and resources: the limit to the expansion of all banks taken together will be given, in so far as they are guided by calculations of pure profit and loss, by the general growth of the economic organism in which they are operating. But competition may easily force expansion beyond this point, both as regards any single bank or all banks taken together." With this development the old antagonism between the Bank of England and certain of the joint-stock banks had to come to an end; otherwise, the Bank could not properly function as a Central Bank. "The balance of power really lay with the joint-stock banks. They could always drive the brokers into the Bank at a moment of crisis, and thus get gold or notes out of the Banking Department; and, in the end, if the Bank wanted to avoid disaster, it was in any case bound to help solvent banks."

As to the effects of currency legislation during the war, Professor Gregory thinks, with some justice, that "it is even now doubtful whether at any time during the war the responsible authorities were fully aware of what they were doing." The "Cunliffe limit" of 1919 to the issue of uncovered Treasury notes he regards as "the cause of the check to the upward trend of prices and of industrial expansion which marked the second half of the year 1920," an opinion which can by no means be accepted simply and unconditionally. He does not express a view as to the economic propriety of the return to the gold standard in 1925, but concludes his Introduction by saying that, "with the passage of the Act of 1928 the seal has for the time being been put, not only on the efforts to repair the damage inflicted by the war upon the British currency standard, but also on the long effort to amend the Bank Act of 1844, which began with the Report of the House of Lords Committee in 1848." A safe, if somewhat cryptic, saying!

HENRY W. MACROSTY

Great Britain from Adam Smith to the Present Day. By PROFESSOR C. R. FAY. (London: Longmans. 1928. Pp. 460. 12s. 6d.)

PROFESSOR FAY's book immediately takes place in the front rank of the now numerous volumes dealing with nineteenth-century economic history; and it has the additional merit of carrying the story over the boundary of the century right up to contemporary affairs. The book would be a fine achievement by an author who had constant access to published and unpublished sources in this country. As the work of one who has for many years lived overseas it is indeed remarkable. What Professor Trevelyan did for the nineteenth century as a whole, Professor Fay has now accomplished for its economic aspects.

The author groups his work into four main sections—Fiscal Policy and Finance, Trade and Transport, Agriculture and Industry, and Life and Labour. In the first he deals with the policy of Premiers and Chancellors from Walpole to Gladstone (the last name great enough, in his view, to head a chapter); in the second, with the development both of overseas trade and of internal communications by way of canals, roads and railways, including two particularly useful chapters on the growth of British ports and the transmission of news. In Part III Professor Fay manages to breathe fresh life into the tale of Boulton and Watt, Kay, Crompton and the rest; while the last chapters cover the growth of Friendly Societies, Trade Unions and the Co-operative Movement.

The book as a whole belongs definitely to the narrative-informative, as opposed to the philosophic, type of history. The author has a story to tell, and he tells it as such, permitting himself hardly ever the luxury of a generalisation. Indeed, this is the secret of the book's charm and interest, as well as of its usefulness as a storehouse of facts. There are no sententious platitudes about *laissez-faire* and collectivism (the only chapter which approaches these, that on Dogma and Revolt, being decidedly the least successful in the book): there are few tendencies and fewer 'isms. Instead, the author has given us facts, concrete, picturesque (accurate!) and remarkably interesting. Indeed, Professor Fay has a most rare and refreshing gift for making facts live without dragging elaborate deductions from them, and for illuminating old knowledge from a new angle. A few examples may illustrate this. Thus the social importance of the Napoleonic war is at once assessed by a series of figures

showing matriculations at Cambridge rising undisturbed from 1800 to 1815. Again, how many historians trouble to tell us that the hydraulic press, the publican's pull-over tap and the water-closet all have a common origin in Bramah's application of the principle of the forcing pump? Or that it was evening classes at the Birkbeck Institute that first set Thomas of steel fame on to his researches?

If the book has a fault, it is that of over-condensation. There are no unnecessary sentences: hardly one indeed that does not tell you some historical fact. Consequently the strain on the reader's attention is at times severe; and this is aggravated by typographical compression, for the page is uncomfortably crowded. Occasionally, also, the author assumes familiarity with matters not specifically mentioned in a manner that may be puzzling to the unlearned. Thus, on p. 49 a reference to the term "natural outlet" within the meaning of the Navigation Laws is hardly intelligible without further exposition of the actual substance of the laws.

These, however, are details. It remains true that Professor Fay has given us a first-rate history with a peculiarly personal quality that it is difficult to convey by description. He has collected much new material, and served up old familiar things with the sauce of new and piquant detail. This is history as it should be written.

BARBARA WOOTTON

The Industrial Development of Birmingham and the Black Country, 1860-1927. By G. C. ALLEN. With an Introduction by J. F. REES. (Allen and Unwin. Pp. 479. 25s.)

WITH this volume Professor Allen has entered hitherto untrodden territory; for though in recent years several writers have traced the fortunes of particular industries over varying periods of time, none has attempted to survey the life-history of an industrial region, and few have had the courage to carry their story to the present day.

In one respect the author had good fortune. Although Birmingham and the Black Country present an almost bewildering diversity of trades, the area is homogeneous in its economic life, and its boundaries are susceptible of closer definition than those of perhaps any other of the major industrial provinces of Britain. As early as the seventeenth century Birmingham had entered upon her career as marketing centre and manufacturer of those highly finished and composite products the cost of which is largely the remuneration of skilled labour. The Black Country,

on the other hand, concentrated on the primary processes of mining and smelting, and the production of commodities more intimately dependent on the extractive industries. Mr. Allen exhibits this contrast at many points of time, and his account of the attractive, holding and expulsive forces determining the localisation of trades will form a rich quarry for teachers who are weary of the stock illustrations.

The dominant theme, however, is the anatomy of industry in 1860 and the following decades. Seventy years ago the economic life of the district hinged on the factor, who co-ordinated the activities of scattered and specialised domestic workers, supplied raw materials and sometimes fixed capital, made weekly advances of cash, and directed the distribution and sale of the finished product. Sometimes the home-worker evolved, first, into a shop-owner, and then into a factory employer. But even in late Victorian times the factory in this area showed marked features of its domestic ancestry; and the typical manufacturer relied on sub-contractors to hire, supervise and pay the workers in his establishment. In the absence of regulation the system was almost inevitably associated with truck, with the exploitation of child labour, and with the permanent indebtedness of both workers and sub-contractors.

Only slowly did industry in the Midlands pass from the domestic and sub-contracting stages into the factory system with its centralised administration. Industrial legislation and the growth of joint-stock enterprise aided the process; but it was mainly through the rise of new industries superseding the old staples that the modern wages contract spread. As the coal-mines of South Staffordshire became exhausted or drowned out, as Bessemer and open-hearth steel took the place of wrought iron, heavy industry moved to the coastal coal-fields. And at the same time national and international forces too numerous to specify were destroying the demand for the product of Birmingham craftsmen and Black Country hardware workers. From the ruins of these handicrafts there sprang, however, the new machine industries producing cycles, motor-cars, electrical apparatus, food-stuffs and artificial silk; for the area with its rich diversity of industrial experience formed "a reservoir of the kind of skill and technical knowledge required." The story forms a fascinating study in adaptation, a corrective to the conception of industry as an architectural structure to be underpinned when bad times come, and a vindication of the view of it as an organism working out its salvation by adjusting itself to the economic *milieu*.

The effect of the war and the post-war depression was to accelerate tendencies in operation before 1914 and to call for "economic resilience" in an even higher degree. If, as Mr. Rees suggests in his judicious introduction, the West Midlands have anticipated the course which British manufacture is to take, the volume must be indispensable to the student of contemporary problems. Dr. Allen shows that the rise of new industries offering well-paid employment in Birmingham was compatible with low wages and unemployment only a few miles away in the Black Country. He thus gives historical support to those who hold that relief must come to the industrial North and to South Wales to-day by the growth of new activities in these places rather than by a transference of labour to other areas. Again, the experience of the Black Country suggests that British industries suffering from foreign competition are likely to do better by concentrating on higher-grade products than by attempting to win back the bulk trade. Economic history written, as it should be, by an economist whose eye is on the past because he is alive to present tendencies, may indeed serve as a guide to policy.

Enough has been said to indicate the high merits of the volume. It remains to point out some minor defects. There are obvious misprints on p. 28, l. 8, p. 167, l. 23, p. 361, l. 8, and p. 417, l. 19. By a curious slip, "East" and "West" are transposed on the compass rose of the map on p. x, and this is perhaps why Dr. Allen writes "western" where he means "eastern" on p. 4, l. 3, and p. 5, l. 30. Perhaps where so much is offered we ought not to complain of omissions; but more discussion might have been given to trade unionism in an area where it has developed distinctive characteristics, and some reference might well have been made to the growth of organised marketing in Birmingham. The book suffers from repetition, and statements that are arresting on a first appearance sometimes appear jaded after a fifth or sixth encore. But the most serious defect is that, though the chapters dealing with earlier history are well documented, there are relatively few references to sources in the last third or half of the book. The author pleads that many of his informants desired anonymity, and urges that the matter is not serious, since readers can check his statements by consulting business men in the area. But it detracts from the value of what might have been, and may still be, a permanent work of reference.

T. S. ASHTON

Industrial Efficiency and Social Economy. By NASSAU W. SENIOR. Original MSS. arranged and edited by S. LEON LEVI. (P. S. King & Son. Vol. I, pp. xxiii + 375; Vol. II, pp. ii + 422. 32s.)

NASSAU WILLIAM SENIOR, first Professor of Political Economy at Oxford, is after Ricardo and Mill the most important figure among the English classical economists. In many ways indeed his claims are not inferior to Mill's. It is true that he possessed neither the wide philosophical vision nor the passion for human improvement which make Mill the Saint of the Social Sciences. But in the more strictly technical fields he had an analytic power at least equal to Mill's, and an originality and imagination in many ways superior. Mill's *Principles* and his *Essays* are essentially a systematisation of the classical system. They sum up what has gone before rather than point the way to what is to come after. Senior's *Political Economy* and his various tracts, although written for the most part considerably earlier, are incomparably more forward-looking, more progressive -- at once more critical of Ricardo, and more fertile of new invention. He discards the wage fund in its more rigid form, anticipates the produce theory, revolutionises the theory of costs and interest, and recognises, if he does not work out, the significance of marginal utility. In the theory of international trade his development of the Ricardian theory is so striking as to be equivalent to innovation. Longfield apart, there is no classic with so modern a flavour. Indeed, if a list were to be compiled of those who, before Marshall, added most to the technical equipment of economic analysis in this country, a good case could be made out for putting Senior rather than Mill between Ricardo and Jevons.

For this reason, therefore, when some twelve years ago it was announced that the Strachey family had discovered several volumes of manuscript lectures by Senior, all good students of the classics felt that an event had occurred second only in importance to the discovery of the Ricardian manuscripts. It was improbable that the new lectures would prove so illuminating as the *Letters to McCulloch* or the *Notes on Malthus*. But it was not excluded that another set of lectures as important as the *Lectures on the Cost of obtaining Money* would be forthcoming.

Alas, poor Senior has been as unfortunate in his editor as Ricardo has been fortunate. It is difficult to imagine an academic catastrophe more lamentable than that which has

compensation from the Ministry of Agriculture under the Diseases of Animals Acts, 1894–1927, or Destructive Insects and Pests Acts, 1877–1927, as though it was money received by way of sale to be accounted for in accordance with the conditions of the charge.

An applicant for a short-term loan secured by a fixed or floating agricultural charge is not restricted to making application to one of the nine shareholding banks of the Agricultural Mortgage Corporation as in the case of long-term and land improvement loans. The bank must, however, be one of the approved banks included in a list kept by the Ministry of Agriculture under Sec. 5 (7). All banks which have so far applied have been put on the list. These include the bank owned by the Wholesale Co-operative Society, and several Scottish banks which have branches in England. The apparent intention of the Act was that live-stock should be covered by a floating charge, and assets of a more durable character, such as milling machinery, were to be covered by a fixed charge. In practice bank's charges are expressed always as both fixed and floating charges. It takes a fixed charge on all the agricultural assets specified in the schedule and a floating charge on all agricultural assets, present and future, belonging to the farmer. The farmer at the same time that he executes the charge is asked to fill in an A.C. 1 form (or, in the case of the borrower, being an agricultural Society giving a debenture under Sec. 14, an A.C. 2 form). The manager of the branch forwards the form and the charge to Head Office, where it is considered and sanctioned by the Branch Inspection Office to which the branch belongs and by the Joint General Managers. If the loan is sanctioned, the A.C. 1 form is sent to the Land Registry for registration within seven clear days of execution. The agreement is not regarded as complete and the money is not placed at the disposal of the farmer until notice has been received from Head Office that the loan has been sanctioned and the charge registered. The charge is exempt from stamp duty, and the only expense incurred by the farmer is the 1s. registration fee. On the farmer's repaying the loan the charge is cancelled and returned to the farmer and a memorandum of cancellation registered, for which another 1s. fee is charged.

Special provisions were inserted in Sec. 12 of the Act to prevent a bank which was unsecured or partly secured in respect of advances made before August 3, 1928, when the Act came into force, obtaining an unfair advantage over other creditors by taking a floating charge to cover the advances then outstanding and any subsequent advances. The section is so curiously worded

that it may mean that if a bank has lent money which was outstanding on August 3, 1928, even though it has been subsequently repaid, the bank will still have to deduct it from the amount secured in respect of any subsequent advances. Consequently branches have been instructed by the Head Offices not to lend any money on agricultural charges to farmers who owed any considerable sum to the bank on August 3, 1928. As Sec. 12 remains in force until January 1, 1931, very few short-term advances will be made until then.

L. LE M. MINTY

REVIEWS

The Social and Economic Development of Scotland before 1603.
By I. F. GRANT. (Oliver and Boyd. 1930. Pp. xii + 594.
21s. net.)

MISS GRANT'S book may be compared in several respects to Kant's *Prolegomena*. In each case there is a new departure—with Kant "towards any future metaphysic," and with Miss Grant towards a future economic history of Scotland. For the author herself would be the first to concede that her book is not such a history, though it is the necessary preparation for it. During a long period writers on this subject were content to take speculation as fact or to accept the mere assertions of their predecessors as if they were facts; indeed up to the end of the nineteenth century writings in this field were an interesting survival of the uncritical attitude of the monkish chronicles. Later, the position was further confused by one tendency towards assuming that English development at early times was repeated in Scotland, or by the contrary attitude that, since it was discovered to be different in some respects, it was altogether different. Meanwhile the work of a number of societies in printing manuscripts, and the publication of *Calendars of State Papers*, were gradually providing material, though even at the present time much that the economic historian requires remains unpublished. A curious coincidence emphasises this point. In the same month that Miss Grant's book was issued there also appeared the "*Copiale Prioratus Sanctiandree*" a substantial volume of 527 pages printed from a MS. discovered by Professor Baxter at Walfenbüttel. The fact that it is one of a group of nine Scottish MSS. which had been "borrowed" shows that Scottish manuscripts wandered as far as Scots Soldiers; and it will be necessary eventually to extend the search for Documents to the Continent.

It follows that Miss Grant has been confronted with a most difficult problem. She has to present a picture, based on the available evidence, which will have some form and at the same time will not strain that evidence. In doing so she contrives by suggestion, rather than explicit statement, to show the great number of places in which more light is required before the way

of the student can be discerned, even faintly. This requires a high degree of skill, and, as might be expected from the author of *Everyday Life on an Old Highland Farm*, she undertakes her solution in the spirit of regarding "the arrangement of historical matter as much more an art than a science." Also, during the period covered, the great problem of Scottish social and economic development was concerned with the possession of land; and, as regards primitive Scottish agriculture, she has absorbed not merely the technique but the essential spirit—"that strange persistence of more ancient things that survives dumb and recessive and yet part and parcel of the life-stream of the race." Further, one cannot but be impressed by the wide range of Miss Grant's sympathy and insight. At one end of the scale important confirmatory evidence on a point of considerable moment is obtained by a comparison of Highland and Lowland fairy tales: at the other, after quoting evidence as to certain forms of organisation, she is careful to state that there are not sufficient instances to establish a general conclusion. It is highly skilled craftsmanship to make a story of wonderful fascination to Scotsmen, and one which cannot be neglected by any who treat economic and social development comparatively, and at the same time to impress on the reader how much remains to be discovered before the picture can be seen with a due balance of light and shade. In this respect the book seems to mirror the troubled soul of the people in the period which it describes—ceaseless effort and striving, yet with the ultimate result in the far distance, only at most to be hoped for.

The significance of Miss Grant's brilliant work thus lies in its suggestiveness for the future. Especially it makes one think, and it is not to be taken as derogatory of its great merits that one wonders sometimes why, even with our present imperfect knowledge, some parts have not been treated more fully or differently. At the beginning, the era before 1057 (the beginning of the reign of Malcolm III) is described as "pre-history" and is dismissed in nine pages. In the whole source-material of history there is no part that has been so thoroughly examined as Scottish archaeological remains; and, even if the results as regards economic development are scanty, much more could have been gleaned. Then "that mysterious people, the Picts," is not so mysterious after all. A good deal can, for instance, be extracted about their social conditions from A. B. Scott, *The Pictish Nation*. One would think that, if Miss Grant's sympathies are not too deeply enlisted by the Gael, she would be rather fascinated by

the task of restoring the Pictish literature, which, it is now urged, the Gaels stole, in the spiritual sense of translating it and giving it out as their own—the exact reverse of Macpherson and Ossian. Also it would provide her with an earlier case of the tragedy she sees in the fall from the golden age (relatively to the one that succeeded it) of the twelfth and thirteenth centuries. It is to be feared that the golden age was much alloyed. Thus William the Lion (1165–1214) is said to be responsible for the “law that is called claremathan,” which shows that, even already, cattle-lifting had become an institution.

An omission may be noticed, namely, that there is no reference to usury during the mediæval period. Is this accidental or is it a fact that Scotland was the only civilised country where Churchmen avoided reference to the condemnations of so many councils? Though the latter seems unlikely, should it chance to be so, the fact would be of great significance.

Yet again Miss Grant makes one think. During the period that the wealth of Britain consisted of wool and its products, how did it come that Scotland was not more prosperous?—for, relative to its total area, the amount of land specially suitable for sheep was a much higher proportion than in England. Wool was exported at a very early period. Hence the natural conditions were suitable for a highly profitable trade. The obvious explanation would probably be that the wars with England and the continual civil strife consumed the stock. The picture merits the sombre brush of Dante—the rigorous execution of “letters of fire and sword,” the coasts of Fife a haunt of pirates, the murderers of Cardinal Beaton maintaining themselves against the remnant of law in the castle of the murdered man for a period of two years, so that, as Miss Grant says, by 1587 the country was “at the nadir of lawlessness,” and a contemporary writer of the previous century exclaims, “I have seen the injuries which are done, the tears of the innocent, the helpless and the destitute, who cannot resist violence and have none to comfort them.” Yet this explanation is not altogether satisfactory, since the Church was the great flockmaster. The Church owned much more than half the wealth of Scotland. It is by no means improbable that the value of its wool was three-quarters of the whole product of the country. Now, was disorder so great that contending nobles committed sacrilege in raiding the patrimony of the Church? One scarcely would think so unless definite evidence were produced, all the more since in the English invasion of 1545, while no less than 248 towns and villages were destroyed,

the same fate was meted out to only seven monasteries and "frear houses"—though the former included the abbeys of Kelso and Melrose. One is inclined to regard the provisional hypothesis that the sheep were inferior. It is true that Hector Boethius (*circ.* 1460), Munster (1550), Ubaldini (1588) have been quoted as speaking of the fineness of Scottish wool. It seems possible that there is misinterpretation here, but one cannot speak positively. The words of the second are "nullibi melior et tenerior lana," and of the third, "non piccola parte di quella delicata et gentile." It is certain that at the end of the eighteenth century there were universal complaints of the bad quality of Scottish wool. This was attributed to deterioration of the breed of sheep. Now it appears from a *Report of the Highland Society*, associated with the names of Sir John Sinclair and Dr. Anderson, and printed in 1790, that on the mainland the original sheep were extinct and were only to be found in Shetland. These were "the kindly sheep" and the "beaver sheep"; both had fine wool, but the yield per sheep was small. The latter had fine wool only about the neck; the remainder of the body was covered largely or altogether with hair or bristles. Thus it seems as if the evidence available may be interpreted as showing that sixteenth-century accounts of the quality of Scottish wool were not untrue, but that the quantity per sheep was small. There is other evidence tending in the same direction. Accordingly, on this basis, one important cause of the slow economic progress of Scotland may have been the low yield of wool per 1,000 acres. The quality probably remained good, but the quantity was deficient—at least in part and quite possibly in the main through peculiarities of the breed or breeds of sheep.

W. R. SCOTT

The Early History of Banking in England. By R. D. RICHARDS, Ph.D., B.Sc. (Econ.) Lond. (P. S. King & Son, Ltd., London. 1929. Pp. xx + 319. 15s. net.)

Select Statutes Documents and Reports relating to British Banking, 1832–1928. Selected with an Introduction by T. E. GREGORY, Sir E. Cassel Professor of Banking and Currency in the University of London. (Oxford University Press. 1929. Vol. I, 1832–44, pp. lx + 147; Vol. II, 1847–1928, pp. viii + 391. 21s. net, or Vol. I, 10s. 6d., Vol. II, 12s. 6d.)

THESE volumes cover the infancy and manhood of banking in this country. It is true that Dr. Richards in his eighth chapter professes to give the "salient features of English banking history

in the eighteenth and early nineteenth centuries," but after 1707 his sketch is very perfunctory indeed. The history of banking under the Bank of England's monopoly, the growth of country banking, and the financing of the Napoleonic wars all require to be re-examined with direct reference to the original sources. Dr. Richards has been able to throw much light on early history by his research in documents hitherto not examined, and it is to be expected that as much illumination would be derived from a similar exploration of State and private documents of the eighteenth century, and from a collation of the extensive permanent and fugitive writings on financial topics of that period. Professor Cannan, in *The Paper Pound of 1797-1821* and in his re-issue of the Report of the Bullion Committee, and Professor Gregory, in his introduction to the new edition of Tooke and Newmarch's *History of Prices*, have provided the raw material for studying the currency problems arising out of the finance of the war with France, and in the volumes before us Professor Gregory takes up the story at a time when "British banking had already advanced some stages in the process of adaptation to a more complex economic environment." Through controversy and crisis his documents lead us to the re-establishment of the gold standard in 1925 and to the amalgamation of the note issues in 1928.

It is difficult to say enough in praise of the two works before us. Dr. Richards has had perhaps the more attractive task in depicting the emergence and gradual development of financial organisation and in narrating the early struggles of a great institution. His account is full of colour and vigour, and, once begun, it is not easy to lay the book down. Contemporary books and pamphlets, manuscripts previously not examined, the early Court Minute Books of the Bank of England (hitherto shrouded from the public gaze), "the earliest ledgers and other documents of the historic banking houses of Hoare and Child," the contemporary Minute Books of the Treasury, have been placed at his disposal or been discovered by him, and out of them he has woven a clear and succinct narrative. Professor Gregory's account is more sedate in form, but it covers such excitements as the unrestrained controversies that raged round the Bank Act of 1844, the crises of 1847, 1857, and 1866, and the finance of the European war. He has reprinted the chief Acts of Parliament, given illustrative extracts from the Reports of, and evidence given before, Select Committees, and drawn on the contemporary comments made at times of crisis by *The Times* and the *Economist*, and the whole of his subject-matter is held together by an Introduction in which,

with admirable clarity, are discussed the fundamental principles of banking which underlay all the disputes and came to the surface in times of great emergency.

Trade with the Continent led to dealing in foreign moneys and to the assignment of mercantile debts by means of the bill of exchange. By the time of Elizabeth "the merchant, the broker, the scrivener, and the goldsmith became prominent as financial intermediaries," and Gresham was the first English financier to raise Royal loans from private citizens. Wealthy merchants lent moneys to the State and carried on exchange transactions. Brokers were in part pawnbrokers, but some undertook the business of exchange and developed into bullion-dealers or into stock-jobbers who dealt in the shares of the trading companies, which were becoming numerous. The scriveners who wrote bonds or contracts acquired "an intimate knowledge of financial and mercantile transactions," and in the seventeenth century were recognised custodians of deposits for which they found employment. "It does not appear from the available contemporary evidence that the goldsmiths were outstanding figures in the London money market of Elizabethan and Jacobean times"; they were primarily jewellers and lapidaries and occasionally money-lenders.

If the scrivener was the primitive banker of the early seventeenth century, his place was taken after the Civil War by the goldsmith bankers. They received deposits on which they paid interest, made loans, discounted both inland and foreign bills of exchange, dealt in bullion and foreign moneys, and financed the warlike operations of the State. The receipt which the goldsmith gave, acknowledging the receipt of money left in his charge, developed into an assignable instrument when the goldsmith was allowed to use such deposits. It took the form of a promissory note issued by the goldsmith as a loan, and sometimes had no metallic backing; it was currency. The next step was the drawing of a cheque by the depositor on his deposit; such date at least from the 1670's. It seems unsound, however, for the author to consider that "the immediate precursors of the modern cheque" were the orders drawn on the Exchequer by officials or pensioners requesting payment of "debentures" due to them to be made to some specified persons; an assignment of salary or a direction for payment to be made to an agent is not a cheque. Houses like those of Vyner, Backwell, Meynell, Whitehall, and others were very powerful. Backwell kept deposits of other bankers and financed the Dunkirk expedition.

After the Restoration the tally for a loan to the Exchequer bore interest, and the repayment order or "order of loan" accompanying it was assignable by endorsement; such orders were frequently discounted by goldsmith bankers. "Fiduciary orders" were next issued by the Exchequer, not in acknowledgment of loans but as charges on subsequent revenue; they were, in truth, an inflation of the currency. Between 1667 and 1671 large numbers were discounted by the bankers, and the inability of the revenue to cover repayments led to the suspension of cash payments in 1672, known as the "Stop of the Exchequer." The debt due by the Crown, mostly to goldsmith bankers, was about £2,250,000, and the suspension brought many to ruin. In 1674 Charles II authorised payment of £140 000 as interest, and in 1677 the remaining debt was charged at 6 per cent. on the Hereditary Excise, each banker assigning his share *pro rata* to the depositors concerned as his creditors. This may be regarded as the beginning of the National Debt, and the amount due was ultimately extinguished in 1723. Dr. Richards deserves great credit for the discovery of two Exchequer books of account containing a large part of the transactions involved in the "Stop," and for thus clearing up the history of an event hitherto obscure.

The gross failure of the issue of paper money by an incompetent and embarrassed Exchequer turned men's minds to the establishment of some institution which would provide a sufficient supply of currency. Many plans, from 1571 onwards, were proposed for a national credit institution, varying in character from a Mont de Piété to a central bank. Gradually, they took the form of projects for a land bank, based on mortgages of real estate, and Asgill, Barbon, Briscoe, and Chamberlen promoted such banks in 1695 and 1696. Run with varying degrees of sanity and honesty, they had a brief and hectic career. Another wild-cat institution was the Million Bank with its speculations in life annuities, while the Orphans' Fund of the City of London, with its offshoot the Bank of the City of London, by speculating in Government loans brought the City's finances to the verge of collapse. Dr. Richards has gathered together much interesting information regarding this crazy quilt of finance, whose main importance is that it represented the yeasty condition of the London money market. If the metaphors are mixed it is because no plain statement can describe a situation so mixed with crankiness and common-sense.

This was no favourable *milieu* for the foundation in 1694 of the Bank of England "for the better raising and paying into the Receipt of the Exchequer the sum of twelve hundred thousand

pounds " at 8 per cent., and various attempts to give it a monopoly culminated in the Act of 1707 forbidding partnerships of more than six persons to engage in banking in England. From the early Court Minute Books Dr. Richards has extracted much curious and interesting detail as to the development of the bank-note and the cheque and as to the financing of William III's campaigns on the Continent. These need not be dealt with here. The infant Bank, however, in 1696 had to make a partial suspension of cash payment, because, while as agent for the Government it was calling in the old debased coinage, it did not receive the new coin from the Mint in sufficient quantities. But by the end of the first decade of the eighteenth century it had established its position and had undertaken the circulation of Exchequer Bills for the Government. Here Dr. Richards's history really ends.

It would be tedious to give a list of the documents in Professor Gregory's two volumes, and, in truth, a reviewer can have no excuse for copying out his author's "Contents" pages. Those in the first volume deal with the inquiries and controversies leading up to the Bank Act of 1844. These began with the triangular fight between the Bank of England, the country banks, and the joint-stock banks which after 1825 could be established outside a sixty-five mile radius from London. The modern idea of a Central Bank was then unfamiliar, and views as to note-issues were, to say the least, confused. The practice and professed principles of the Bank of England were often in conflict. To summarise the discussion here is impossible, but the first twenty-four pages of Professor Gregory's Introduction will be found an admirable guide through a land covered with thickets and thorns.

The second volume is divided into three parts. The first deals with the crisis of 1847, that of 1857, the Overend Gurney crash of 1866, the Baring crisis of 1890, and the American crisis of 1907. The second part contains documents relative to the regulation of joint-stock banks and to private note issues, while the third covers war and post-war legislation. Issues of consequence in banking policy emerged by 1858—the "relaxing power," the ability of the Bank Directors to act against their own immediate interest, the discount rate as a means of market control, the Bank as the "ultimate reservoir of credit" and the bill market, the rate of interest on deposits. Discussion of these points occupies the admirable seventh section of the Introduction.

The proper constitution of a Bank is now settled, and the ancient quarrels regarding the suitability of joint-stock banking

seem like the battles of the kites and crows. To the perusal of Professor Gregory's summary one may suggest to the student to add a reading of *The Amalgamation Movement in English Banking*, by J. Sykes, B.A., M.Com. (P. S. King & Sons, Ltd.).

"The characteristic feature, economically speaking," says Dr. Gregory, "of British banking in the three-quarters of a century before the war is the gradual elimination of the private banker and the growing size of the banking unit." The strength of the joint-stock banks lay in their ability to raise capital, and the power to expand, so arising, naturally led to the absorption of other banks. "The limit to the expansive movement of each bank is such an organisation as will represent the maximum degree of inter-local compensation of risks and resources : the limit to the expansion of all banks taken together will be given, in so far as they are guided by calculations of pure profit and loss, by the general growth of the economic organism in which they are operating. But competition may easily force expansion beyond this point, both as regards any single bank or all banks taken together." With this development the old antagonism between the Bank of England and certain of the joint-stock banks had to come to an end ; otherwise, the Bank could not properly function as a Central Bank. "The balance of power really lay with the joint-stock banks. They could always drive the brokers into the Bank at a moment of crisis, and thus get gold or notes out of the Banking Department ; and, in the end, if the Bank wanted to avoid disaster, it was in any case bound to help solvent banks."

As to the effects of currency legislation during the war, Professor Gregory thinks, with some justice, that "it is even now doubtful whether at any time during the war the responsible authorities were fully aware of what they were doing." The "Cunliffe limit" of 1919 to the issue of uncovered Treasury notes he regards as "the cause of the check to the upward trend of prices and of industrial expansion which marked the second half of the year 1920," an opinion which can by no means be accepted simply and unconditionally. He does not express a view as to the economic propriety of the return to the gold standard in 1925, but concludes his Introduction by saying that, "with the passage of the Act of 1928 the seal has for the time being been put, not only on the efforts to repair the damage inflicted by the war upon the British currency standard, but also on the long effort to amend the Bank Act of 1844, which began with the Report of the House of Lords Committee in 1848." A safe, if somewhat cryptic, saying !

HENRY W. MACROSTY

Great Britain from Adam Smith to the Present Day. By PROFESSOR C. R. FAY. (London: Longmans. 1928. Pp. 460. 12s. 6d.)

PROFESSOR FAY'S book immediately takes place in the front rank of the now numerous volumes dealing with nineteenth-century economic history; and it has the additional merit of carrying the story over the boundary of the century right up to contemporary affairs. The book would be a fine achievement by an author who had constant access to published and unpublished sources in this country. As the work of one who has for many years lived overseas it is indeed remarkable. What Professor Trevelyan did for the nineteenth century as a whole, Professor Fay has now accomplished for its economic aspects.

The author groups his work into four main sections—Fiscal Policy and Finance, Trade and Transport, Agriculture and Industry, and Life and Labour. In the first he deals with the policy of Premiers and Chancellors from Walpole to Gladstone (the last name great enough, in his view, to head a chapter); in the second, with the development both of overseas trade and of internal communications by way of canals, roads and railways, including two particularly useful chapters on the growth of British ports and the transmission of news. In Part III Professor Fay manages to breathe fresh life into the tale of Boulton and Watt, Kay, Crompton and the rest; while the last chapters cover the growth of Friendly Societies, Trade Unions and the Co-operative Movement.

The book as a whole belongs definitely to the narrative-informative, as opposed to the philosophic, type of history. The author has a story to tell, and he tells it as such, permitting himself hardly ever the luxury of a generalisation. Indeed, this is the secret of the book's charm and interest, as well as of its usefulness as a storehouse of facts. There are no sententious platitudes about *laissez-faire* and collectivism (the only chapter which approaches these, that on Dogma and Revolt, being decidedly the least successful in the book): there are few tendencies and fewer 'isms. Instead, the author has given us facts, concrete, picturesque (accurate!) and remarkably interesting. Indeed, Professor Fay has a most rare and refreshing gift for making facts live without dragging elaborate deductions from them, and for illuminating old knowledge from a new angle. A few examples may illustrate this. Thus the social importance of the Napoleonic war is at once assessed by a series of figures

showing matriculations at Cambridge rising undisturbed from 1800 to 1815. Again, how many historians trouble to tell us that the hydraulic press, the publican's pull-over tap and the water-closet all have a common origin in Bramah's application of the principle of the forcing pump? Or that it was evening classes at the Birkbeck Institute that first set Thomas of steel fame on to his researches?

If the book has a fault, it is that of over-condensation. There are no unnecessary sentences: hardly one indeed that does not tell you some historical fact. Consequently the strain on the reader's attention is at times severe; and this is aggravated by typographical compression, for the page is uncomfortably crowded. Occasionally, also, the author assumes familiarity with matters not specifically mentioned in a manner that may be puzzling to the unlearned. Thus, on p. 49 a reference to the term "natural outlet" within the meaning of the Navigation Laws is hardly intelligible without further exposition of the actual substance of the laws.

These, however, are details. It remains true that Professor Fay has given us a first-rate history with a peculiarly personal quality that it is difficult to convey by description. He has collected much new material, and served up old familiar things with the sauce of new and piquant detail. This is history as it should be written.

BARBARA WOOTTON

The Industrial Development of Birmingham and the Black Country, 1860-1927. By G. C. ALLEN. With an Introduction by J. F. REES. (Allen and Unwin. Pp. 479. 25s.)

WITH this volume Professor Allen has entered hitherto untrodden territory; for though in recent years several writers have traced the fortunes of particular industries over varying periods of time, none has attempted to survey the life-history of an industrial region, and few have had the courage to carry their story to the present day.

In one respect the author had good fortune. Although Birmingham and the Black Country present an almost bewildering diversity of trades, the area is homogeneous in its economic life, and its boundaries are susceptible of closer definition than those of perhaps any other of the major industrial provinces of Britain. As early as the seventeenth century Birmingham had entered upon her career as marketing centre and manufacturer of those highly finished and composite products the cost of which is largely the remuneration of skilled labour. The Black Country,

on the other hand, concentrated on the primary processes of mining and smelting, and the production of commodities more intimately dependent on the extractive industries. Mr. Allen exhibits this contrast at many points of time, and his account of the attractive, holding and expulsive forces determining the localisation of trades will form a rich quarry for teachers who are weary of the stock illustrations.

The dominant theme, however, is the anatomy of industry in 1860 and the following decades. Seventy years ago the economic life of the district hinged on the factor, who co-ordinated the activities of scattered and specialised domestic workers, supplied raw materials and sometimes fixed capital, made weekly advances of cash, and directed the distribution and sale of the finished product. Sometimes the home-worker evolved, first, into a shop-owner, and then into a factory employer. But even in late Victorian times the factory in this area showed marked features of its domestic ancestry; and the typical manufacturer relied on sub-contractors to hire, supervise and pay the workers in his establishment. In the absence of regulation the system was almost inevitably associated with truck, with the exploitation of child labour, and with the permanent indebtedness of both workers and sub-contractors.

Only slowly did industry in the Midlands pass from the domestic and sub-contracting stages into the factory system with its centralised administration. Industrial legislation and the growth of joint-stock enterprise aided the process; but it was mainly through the rise of new industries superseding the old staples that the modern wages contract spread. As the coal-mines of South Staffordshire became exhausted or drowned out, as Bessemer and open-hearth steel took the place of wrought iron, heavy industry moved to the coastal coal-fields. And at the same time national and international forces too numerous to specify were destroying the demand for the product of Birmingham craftsmen and Black Country hardware workers. From the ruins of these handicrafts there sprang, however, the new machine industries producing cycles, motor-cars, electrical apparatus, food-stuffs and artificial silk; for the area with its rich diversity of industrial experience formed "a reservoir of the kind of skill and technical knowledge required." The story forms a fascinating study in adaptation, a corrective to the conception of industry as an architectural structure to be underpinned when bad times come, and a vindication of the view of it as an organism working out its salvation by adjusting itself to the economic *milieu*.

The effect of the war and the post-war depression was to accelerate tendencies in operation before 1914 and to call for "economic resilience" in an even higher degree. If, as Mr. Rees suggests in his judicious introduction, the West Midlands have anticipated the course which British manufacture is to take, the volume must be indispensable to the student of contemporary problems. Dr. Allen shows that the rise of new industries offering well-paid employment in Birmingham was compatible with low wages and unemployment only a few miles away in the Black Country. He thus gives historical support to those who hold that relief must come to the industrial North and to South Wales to-day by the growth of new activities in these places rather than by a transference of labour to other areas. Again, the experience of the Black Country suggests that British industries suffering from foreign competition are likely to do better by concentrating on higher-grade products than by attempting to win back the bulk trade. Economic history written, as it should be, by an economist whose eye is on the past because he is alive to present tendencies, may indeed serve as a guide to policy.

Enough has been said to indicate the high merits of the volume. It remains to point out some minor defects. There are obvious misprints on p. 28, l. 8, p. 167, l. 23, p. 361, l. 8, and p. 417, l. 19. By a curious slip, "East" and "West" are transposed on the compass rose of the map on p. x, and this is perhaps why Dr. Allen writes "western" where he means "eastern" on p. 4, l. 3, and p. 5, l. 30. Perhaps where so much is offered we ought not to complain of omissions; but more discussion might have been given to trade unionism in an area where it has developed distinctive characteristics, and some reference might well have been made to the growth of organised marketing in Birmingham. The book suffers from repetition, and statements that are arresting on a first appearance sometimes appear jaded after a fifth or sixth encore. But the most serious defect is that, though the chapters dealing with earlier history are well documented, there are relatively few references to sources in the last third or half of the book. The author pleads that many of his informants desired anonymity, and urges that the matter is not serious, since readers can check his statements by consulting business men in the area. But it detracts from the value of what might have been, and may still be, a permanent work of reference.

T. S. ASHTON

Industrial Efficiency and Social Economy. By NASSAU W. SENIOR. Original MSS. arranged and edited by S. LEON LEVI. (P. S. King & Son. Vol. I, pp. xxiii + 375; Vol. II, pp. ii + 422. 32s.)

NASSAU WILLIAM SENIOR, first Professor of Political Economy at Oxford, is after Ricardo and Mill the most important figure among the English classical economists. In many ways indeed his claims are not inferior to Mill's. It is true that he possessed neither the wide philosophical vision nor the passion for human improvement which make Mill the Saint of the Social Sciences. But in the more strictly technical fields he had an analytic power at least equal to Mill's, and an originality and imagination in many ways superior. Mill's *Principles* and his *Essays* are essentially a systematisation of the classical system. They sum up what has gone before rather than point the way to what is to come after. Senior's *Political Economy* and his various tracts, although written for the most part considerably earlier, are incomparably more forward-looking, more progressive—at once more critical of Ricardo, and more fertile of new invention. He discards the wage fund in its more rigid form, anticipates the produce theory, revolutionises the theory of costs and interest, and recognises, if he does not work out, the significance of marginal utility. In the theory of international trade his development of the Ricardian theory is so striking as to be equivalent to innovation. Longfield apart, there is no classic with so modern a flavour. Indeed, if a list were to be compiled of those who, before Marshall, added most to the technical equipment of economic analysis in this country, a good case could be made out for putting Senior rather than Mill between Ricardo and Jevons.

For this reason, therefore, when some twelve years ago it was announced that the Strachey family had discovered several volumes of manuscript lectures by Senior, all good students of the classics felt that an event had occurred second only in importance to the discovery of the Ricardian manuscripts. It was improbable that the new lectures would prove so illuminating as the *Letters to McCulloch* or the *Notes on Malthus*. But it was not excluded that another set of lectures as important as the *Lectures on the Cost of obtaining Money* would be forthcoming.

Alas, poor Senior has been as unfortunate in his editor as Ricardo has been fortunate. It is difficult to imagine an academic catastrophe more lamentable than that which has

The Bank for International Settlements. By PAUL EINZIG.
(Macmillan. Pp. 179. 7s. 6d.)

It may be confidently anticipated that Dr. Einzig's book is the precursor of a numerous tribe of works on the same subject. He is to be congratulated on having offered thus early an exposition of a project which may have a profound influence upon the monetary affairs of the world.

He has something to say as to the functions of the Bank as the channel for the payment of German reparations, but he regards "the so-called 'auxiliary functions'" as "by far the more interesting and important. The change in the system of reparations mainly concerns Governments. It does not directly affect the business world or the man in the street, nor does it excite the imagination of the public. On the other hand, the international banking activities of the institution are calculated to exercise a direct effect upon the actual financial situation, and upon the system of international financial intercourse."

Dr. Einzig is very much alive to the wide possibilities of the Bank. He sees it, in the future, improving the spirit of co-operation between central banks, regulating the demand for gold, stabilising the international price level, eliminating abnormal discrepancies between interest rates.

One of his most interesting chapters is on a "world bank rate." A uniform world bank rate he shows would be an impossibility. "It appears that the right solution must be to fix the re-discount rate and the rate for advances to meet the particular circumstances of each individual case, taking into consideration the rate at which the Bank itself can borrow in the same currency" (p. 86), and he suggests that "in order to avoid any ill-feeling, the rates applied to various central banks should be treated as strictly confidential" (p. 87).

There is one fundamental question which Dr. Einzig has not adequately elucidated; he does not make clear what use the central banks will make of their deposits at the International Bank. In a chapter on the credit resources of the Bank, he points out the inflationary possibilities in the form of unlimited lending. But he does not stop to ask what payments a central bank will have to make from the credits created in its favour.

The international clearing system adumbrated in the Young Report, which is adversely criticised by him in Chapter X, looked forward to a reproduction of the Gold Settlement Fund of the Federal Reserve System. Clearing deposits, backed by gold, were

to be used for settling the mutual liabilities of the central banks. But, as business is at present carried on, the mutual payments of central banks are not an important matter. Anything like the Gold Settlement Fund would mean a revolutionary substitution for the existing foreign exchange market of a system of settlement through central banks. And this proposal was quietly dropped by the organising committee.

If the functions of the Bank for International Settlements as the Central Bank of central banks are to have any significance, it will be through the central banks being enabled to treat their deposits with it as foreign exchange reserves equivalent to gold. That is a matter for the legislation or for the administrative practice of each of the countries concerned to determine.

If all the participating central banks undertake to buy and sell cheques on the Bank for International Settlements at rates close to gold parity, the path is open to a co-ordinated international credit system.

R. G. HAWTREY

The Recovery of Germany. By JAMES W. ANGELL, Associate Professor of Economics, Columbia University. (New Haven : Yale University Press. London : Humphrey Milford, Oxford University Press. 1929. Pp. xix + 425. 18s.)

DR. ANGELL's book contains what is probably the best study of Republican Germany from the economic standpoint which has yet been made by an expert. A book of this type can only be undertaken and marketed at a reasonable price when behind writer and publisher is the practical co-operation of a public-spirited sponsor. Dr. Angell has worked to the commission of the American Council on Foreign Relations, and that body is to be complimented both upon its own timely enterprise and upon its choice of an investigator. The task of the latter was to collate the essential facts regarding the economic development of Germany since the war, to explain the principal causes of the recovery which has taken place since the opening of the era of stabilisation in 1924, to take stock of the present situation, and to attempt some sort of estimate of the country's reasonable prospects. This task he has achieved with marked success. His book is a sound piece of workmanship. While economic facts are presented with severely scientific impartiality, the human element is never lost sight of, and this fact, together with the writer's lucid style, holds the reader's attention.

Beginning his survey with the revolution of October 1918,

Dr. Angell in the course of some 80 pages traces the course of events during the stormy period which preceded the institution of the republic and the enactment of the Weimar constitution; summarises such of the provisions of the Treaty of Versailles as bear directly upon Germany's economic life and fortunes; deals in broad outlines with the inflation period and the causes which produced it, assigning responsibility and blame for the resulting disaster where justly due, and exculpating neither the French nor the German Government; and gives a compact yet clear exposition of the Dawes Plan.

As to this first Plan, while he does full justice to its merits and the spirit which prompted it, he points out that it cannot be claimed to have set Germany at once on her feet again. What it did was to put an end to an intolerable situation; the effective causes of the subsequent recovery were the systematic "rationalisation" of German economic life and the influx of foreign money which became possible under stabilisation.

The larger and most important part of the work is taken up by a detailed examination into the later progress and the present position of the greater industries of the country—coal, coke and lignite, iron and steel, machinery, electric power, textiles, and chemicals—the position and policy of labour in the changed political conditions, foreign trade, and national income, expenditure, taxation, savings, and indebtedness; while the last chapter treats of the causes which led to the Paris Conference of last year and the resulting Young Plan, explains what the Plan is, and considers its probable influence upon Germany's economic development, present and future. Finally, a series of sixteen appendices contain a large amount of statistical data which usefully supplement the text.

It will be seen that Dr. Angell's book covers much ground which other writers have explored before him, though none has done it so thoroughly. What will chiefly interest most readers are the conclusions to which his investigations have led him. It is noteworthy that while he appears to have begun his narrative in some distrust of Germany's future, his faith clearly increased as he proceeded. The reason for this may be that the earlier chapters were written before the adoption of the Young Plan, which brought light into many dark places. Briefly, Dr. Angell holds that, in spite of certain present elements of weakness and strain, Germany is steadily recovering and will eventually recover entirely, even if the reparations had to be paid to the last mark, which would be a big assumption. He does not overlook the

difficulties created by the fact that the reparations can only be paid by exported goods which the creditor countries, illogically but comprehensibly enough, are unwilling to receive; but he believes that these difficulties will be overcome. After all, not every nation has its hand in Germany's pocket and purse; there are far more neutral than ex-belligerent countries in the world, and some of these offer large markets which have not been exploited as yet to the extent they deserve. So the conclusion to which he comes is that the future is hopeful. He writes:

"Despite the loss of territory under the terms of the Treaty of Peace, the aggregate volume of production is materially larger than it was in 1913, the average prosperity of the people as a whole is a little greater, and Germany's industrial leadership on the Continent has been conclusively re-established. The prospects for the future are good. It is true that any period of sustained general prosperity such as prevailed in the years just before the war is probably still a long way ahead. From the economic point of view, Germany is and will be a country working under burdens which by every standard must be judged severe, chiefly the burden of reparations and of the service charges on foreign capital. . . . But that Germany's expansion will continue in coming years seems assured. The great source from which it will come is the progress of the German industrial and commercial techniques—techniques which are already as good on the average as the standard prevailing in other European countries or better, and which there is every reason to think will continue to advance. The road marked out for Germany through the coming decades is not easy, but it is a road which climbs steadily upward, and at its end lies the prize of assured national strength and prosperity."

Perhaps one has no right to expect from German economists, industrialists, and financiers entirely unbiassed forecasts of the future of their country; but it is safe to say that in both diagnosis and prognosis Dr. Angell is backed by most well-informed opinion abroad, and that fact increases the value of his survey. My own opinion, which did not vary in the time when Germany seemed in the lowest depth of the trough of despair, is that the authors of the Treaty of Versailles have unwittingly (though as statesmen they should have known better) created an economic Titan, and the Titan is still only young. Where in a book merits abound a reviewer may be forgiven an unholy joy if he finds ground for even a minor criticism. Now and then the author exercises an undue freedom in translating German terms into English. To

take two examples: he converts *Reichskuratorium für Wirtschaftlichkeit* into National Efficiency Board, whereas the unwieldy last word stresses the idea of thrift; further, he would hardly have spoken of the *Reichswirtschaftsrat* as the "Federal Council" if he had remembered for how long a time the latter name has been coupled with purely political associations.

W. H. DAWSON

Unemployment Insurance in Germany. By M. R. CARROLL. (The Brookings Institution, Washington, U.S.A.)

A COUNTRY like the United States, which is beginning to take its unemployment problem seriously, has much to gain by studying the experience garnered in certain European countries during the last thirty years. In Germany and Great Britain there is now a rich harvest of facts open to the inquirer. And while these facts may not always be encouraging, they ought at least to serve as a warning that the problem is many-sided and that facile promises of a cure-all are to be discounted. The Brookings Institution of Washington, a foundation devoted to the study of economics and the social sciences, has therefore done well to publish Miss Carroll's researches into German experience. And, as a similar institution in New York is about to issue a full account of British Unemployment Insurance, which will supplement the recent study of the British Employment Exchanges written by another American Student, the United States will have ready to hand an up-to-date survey of the methods of dealing with the unemployed adopted in the two countries which have been pioneers in this branch of social science.

Miss Carroll's study covers, not only Unemployment Insurance, but the whole range of German measures. It is a concentrated statement of facts collected with the help of the German Ministry of Labour, and since it is, so far as the present reviewer is aware, the sole complete account in English, it should be an asset not only to her countrymen, but to administrators and students of unemployment elsewhere. Possibly Miss Carroll might have improved her book by a fuller discussion of many vital points. As it is she is almost too modest and objective in her treatment. She faithfully reflects official opinions, but forbears to shed any light of her own.

For us, in Great Britain, a study of German experience is not only useful but comforting. We realise that we are not alone in our long battle with the unemployed problem, either in its social or its economic aspects. Germany has been suffering from the

same stress of mass unemployment and has been baffled by the same difficulties. Step by step her expedients have been comparable to our own. True, her acute troubles began only in 1924, when the inflation period came to a sudden end, but to-day the German authorities have learned much the same lessons and are faced by the same dilemmas as our own departments in Whitehall.

And, indeed, the similarity in the method of approach of the two countries is no mere accident. For twenty years past they have borrowed ideas and policies from one another. The city of Cologne started a public system of unemployment insurance as long ago as 1894. In 1908 the municipal Labour Exchanges working in Cologne, Stuttgart and Berlin gave Sir William Beveridge valuable hints for our own national system of Exchanges and Unemployment Insurance. After that, Britain took the lead, and since 1925 Germany has paid us the compliment of studying our methods. If she had been a unitary instead of a federal state she would probably have followed our example sooner. As it was, the German Government spent a good many years in trying compromises of various kinds, all of which are described in outline by Miss Carroll, together with the reasons for their failure. But by 1925 the Trade Unions and a large section of the public were agreed in demanding a national system of contributory unemployment insurance.

The Act of July 1927, which brought this system into operation, was undoubtedly influenced by the British precedent; even the phrasing of some of the rules was the same. Yet there were fundamental divergencies. The German experts took warning from our most conspicuous failing and resisted the temptation to put an unlimited liability on the contributory fund. Nor were they afraid to tighten up the rules of benefit, particularly the contribution test. Confronted with the hard case of claimants who would have to be disqualified under the rules, they did not waive their standard test (which is comparable to our own of 30 contributions in two years), nor did they abolish the maximum period of 26 weeks of statutory benefit. Instead, they brought in the national exchequer, which contributed nothing to the insurance fund itself, to finance a secondary scheme, called Emergency Benefit. This was on a non-contributory basis and gave less favourable benefits.

Such a solution is clumsy and easy to criticise. It may be no more than a temporary device. But, at least, it shows respect for the principle that the status of a contributory scheme of insurance

must be preserved in the eyes of the contributors. In 1930, after nine years of extended benefits, Great Britain has reluctantly fallen back on the same method of dealing with the "uninsurable risks"; but with this important difference, that Germany gives her non-contributory relief only on proof of need and for a limited time, whereas Great Britain pays a State donation as a right, for an indefinite period and at the same rates as ordinary benefit.

As Miss Carroll writes: "German experience has shown that insurance cannot care for all who are unemployed. There are risks which the system cannot carry without endangering the funds or increasing the contributions (now $3\frac{1}{2}$ per cent. of wages) to an unbearable degree. Inasmuch as the other forms of German social insurance cost about 12 per cent. of the total wages bill, there are definite limits to the added burden that unemployment insurance can impose upon industry."

British experience is, of course, the same, though our insurance charges on industry are only 2s. 9d. a week (plus the cost to employers of insurance against accident) as against 7s. 9d. a week (that is, $15\frac{1}{2}$ per cent.) on a wage of 50 shillings in Germany, in both cases these charges being approximately halved as between the employer and the employee.

Clearly, therefore, a second line of defence behind the insurance scheme is necessary. What form should it take? That is a question which still baffles both countries.

In Germany, as well as in England, the natural and most easily administered alternative would be to leave all the chronic unemployed as well as the uninsured to the care of localities. No other authorities are really fitted to administer relief on a need basis, but the trouble in both countries is that serious political and financial obstacles stand in the way of any addition to local burdens.

"As long," says Miss Carroll, "as one person in every 25 of the urban population must apply to public charity, and one-third of the budget of the cities goes to poor relief, there is little extra money in the public (*i.e.* local) treasury for indigence arising from unemployment."

There is also a good deal in this book about Relief Works which makes instructive reading. Faith in this method has been as difficult to shake in Germany as it has in England. In 1926 a special effort was made to persuade the separate states and cities to proceed with public works, and over £16 million was spent by the Reich government. What the total cost of the works amounted to is not stated by Miss Carroll, but it may well have been double

the amount of the Reich subsidies. Yet the number thereby employed never exceeded 170,000. After 1926 the pace slackened. The practical value of the idea began to be discredited and funds were hard to come by. None the less the Unemployment Insurance Act of 1927 included provision for payments out of the contributory fund towards the wages of an unemployed man engaged on relief work. But in practice little seems to have been done under this clause, and, since 1927, the numbers on "value creating unemployment relief" have been about 4 per cent. or 5 per cent. of the applicants registered at Exchanges.

It will be seen that most of the more important facts set out in this book could be paralleled in British experience, though it was no part of Miss Carroll's object to draw the comparison. Incidentally, such references to British conditions as she does permit herself are not always correct. That, however, is a minor blemish. By her studies in Germany she has acquired an expert knowledge of unemployment problems which are common to both countries, and she has rendered a real service by putting the results of her researches into a book. RONALD C. DAVISON

Economic Trends in Soviet Russia. By A. YUGOFF. (Translated by E. & C. PAUL.) (London: G. Allen and Unwin. Pp. 349.)

IT is a difficult task to write a book on the present-day economics of Soviet Russia without having actually seen the developments in recent years. On the other hand, books on Soviet economics of this kind cannot be written in Russia because sharp criticism of Soviet affairs involves great risk for the author. However, this book is an important achievement considering the difficulty of receiving the necessary information.

The author is a Marxian and a staunch Social Democrat. He believes in the necessity of reforming human society on socialistic lines, and is in sympathy in principle with all the chief measures of Soviet government—rationalisation of the principal branches of industry, monopoly of foreign trade, etc.—but he condemns the wholesale and violent application of these measures "in a backward country, in one economically immature."

Unfortunately, this book is a typical production of a Russian *Menshevik* (moderate Social Democrat as opposed to Bolshevik), and the chief stress is laid on criticising the deviation of Soviet rulers from orthodox Marxian principles, and on outlining measures of a true evolutionary Socialism. "Russia, though its territories are enormous and its natural resources very great (he explains),

is not one of the countries in which such an isolated socialism can be established." Therefore, "the rationalisation of industry in Russia has not produced a socialist economy, but only a bureaucratic and badly-functioning State capitalism."

I do not think that foreign readers are very much interested in the endless controversies of the Russian socialist *émigrés* as to the ways and means of the most rational rebuilding of Russian economics and social life on socialistic lines. It would be much better if the author had given in a much shorter contribution a description of the principal facts of Soviet economics and have left the facts to speak for themselves.

In the preface the author complains that the Soviet Russian statistics are tendentious, incomplete, often inaccurate and contradictory; he therefore promises to check the official reports and to analyse them methodically. Unhappily, this is a very difficult task for anybody who has not actually participated in the collection and supervision of Russian statistics. As a matter of fact, the Soviet Government lays great stress on procuring reliable statistical information because thousands of State departments are fully dependent in their practical work on the best available statistics. However, the Soviet economic publications and their public reports and periodicals are usually tendentious, especially those published in foreign languages; the Soviet compilers as a rule do not falsify intentionally statistical data, but they conceal many facts and information unfavourable to the present regime.

I have not noticed much of methodical analysis of this kind in Yugoff's book. It is true that he criticises sharply the computation of the national income, the burden of taxation, etc., but everybody knows that data of this kind can never be accurate enough in any country in the world, and especially on the one-sixth of the earth representing Soviet Russia. I venture to say that Russian economists and statisticians, who in the majority are by no means communists, have done their best in this respect.

For Yugoff, a socialist, pre-war conditions are naturally abominable. On the other hand, he is an ardent supporter of the grain monopoly introduced in 1917 by the Provisional Government; we know that this was one of the most unfortunate measures, predestined to collapse.

A very good description is given of the period of the so-called "war communism." It seems even as if the author had himself seen this terrible experiment of socialism pure and simple. He is quite right in saying that attempts to justify the policy of war

communism as a necessary policy of self-protection conflict with historical facts.

Yugoff criticises skilfully the organisation of State industry in Soviet Russia and describes the defects of its administration. He comes to the conclusion that the real reason of the unsatisfactory administration and troubles is to be found in the enormous extent of the task that has been undertaken, in the nature of the whole system, in the general regime of dictatorship and in the lack of capital. Because of the lack of capital the State tried to secure the necessary means for the reconstruction of industry by inflationist measures or by fixing high prices for the products of industry, while the prices for grain and other agricultural produce were kept low. In its turn this policy was a hard blow on the peasant.

Much weaker and less accurate, at least in some minor details, is the description of the internal trade, of the monopoly of foreign trade, and of public finance. Not having seen the actual management of the Soviet trade system, Yugoff is unable to understand the so-called "co-operative organisation" in Russia, although he is perfectly right in remarking that it has nothing in common with the true nature of co-operation.

It is a great pity that the important chapter on the Soviet monopoly of foreign trade should be written by Yugoff without sufficient knowledge. He is convinced that the present system of foreign commerce is bankrupt, although in principle he, as an orthodox socialist, is a supporter of such a State monopoly. He evidently knows very little about the dumping practices of the Soviet Government, about the considerable losses of this monopoly, and about the peculiar customs tariff policy. Of course it is very difficult for an outsider to penetrate into the Soviet secrets of this service.

The chapter on currency and State finance is weak also. Perhaps I am too severe in my remarks on this special topic; having been for years associated with the financial administration of Soviet Government, I am naturally inclined to expect a better knowledge of what is going on in Russia in this field of economics. I am really surprised how little is understood about Soviet currency and public finance among Russian emigrants in general, and Yugoff makes no exception to this rule when he seriously asserts that "in Russia, where economic life is continually being disturbed by paroxysms of inflation fever, the psychological importance of having large (gold) reserves is enormous." Soviet currency is a very peculiar currency for

internal use only, and by far the greater part of the country's turnover represents simply the commodity market of the State.

Nor is it true that prices for private trading are fixed by the Government as for State trade. Very strange is the assertion that "the granting of bank credits does not depend upon the solvency of the borrower, but upon political considerations." This proves that Yugoff does not know the details of the peculiar Russian banking system, and as a matter of fact the granting of credits is done according to definite plans.

It is a mistake to assert that the general budget of the U.S.S.R. contains the local budgets of the urban and village Soviets. Yugoff is good enough to cite my obsolete book on Soviet Russian taxation, but unfortunately he does not know my recent book on Russian public finance published in German, where he could find all the necessary details (cf. the review in the *ECONOMIC JOURNAL*, December 1928). Nor is the loan policy described quite accurately, and I do not think that "the population gradually learned how to avoid subscribing." As a matter of fact, this is not the case, and a considerable pressure is going on unabated. I do not blame the author if he does not know what use is made of the enormous so-called "reserve funds" (i.e. secret funds) of the Council of People's Commissars mentioned in the official budget, or of the millions of the Comintern or the Communist Party, etc. But it is a naïve question to put and to expect that the Soviet Government should render account in public on these matters!

On the contrary, very good are the chapters devoted to the housing problem and the labour conditions. This is not only a fine description of existing conditions, but an impartial one too.

The last three chapters, (1) on "Purposive Economics" (by this rather clumsy expression adopted by the translators is meant "the planning of national economics"), (2) "Towards Socialism or Capitalism," and (3) "The Economic Balance-sheet," are of no great value or interest for a foreign reader. Yugoff is not well acquainted with the technique of State planning in Soviet Russia, but he is very eager to find out methods of such planning for future generations of true and learned socialists: "therefore just as the observations of the Assyrian astrologers and the mediæval alchemists, though in many respects out of touch with reality and devoid of scientific value (he says), became none the less the foundations of modern astronomy and chemistry respectively, so the labours of the Soviet economists, despite their utopianism, must be taken into account by all whose business it will be to draft similar plans in the future."

In spite of these defects and of the purely "Menshevist" conceptions Yugoff's book is really worth reading; it is composed with great skill and well written, and many facts collected from official sources are highly interesting and in many cases illuminating. And above all, some blunders of the author are the result of the cruel fate which compels Russians, even staunch Marxians, to live as emigrants, if they venture to criticise Soviet economic policy, so that they are deprived of the necessary statistical material and information! Under these conditions it is really an achievement that Yugoff was able to write a book of this kind; it is much above many similar books of foreigners who have visited Soviet Russia.

Unfortunately, about two years have elapsed since he wrote his manuscript in Russian, and not very much has been added in the German and English editions; therefore some of the most important developments in Russian economics (at the end of 1929 and in the beginning of 1930) could not be considered.

PAUL HAENSEL

The Farm Export Debenture Plan. By J. S. DAVIS. (Published by the Food Research Institute, Stanford University. Pp. 275: \$3.)

Farm Relief. By J. E. BOYLE, Cornell University. (New York: Doubleday, Doran & Co. Pp. 281.)

BOTH these books speak with authority; Mr. Davis is Director of the Food Research Institute, and Mr. Boyle is Professor of Rural Economy in the New York State College of Agriculture. They deal with two remarkable schemes for the relief of agriculture in America, the "equalisation fee" and the "export debenture." Of these, the former is probably now out of the picture; but the latter is still very much alive, despite the rebuff it has received, and the passage of the Agricultural Marketing Act, which was described in the last number of this JOURNAL. Neither of these plans is quite the same as any of the valorisations which have been attempted in respect of raw produce elsewhere; nor is the export debenture plan at all similar, as Mr. Davis shows, to the German system of *Einfuhrscheine*. Their special features are the boldness, the scale, the extent, and the cost to be incurred in respect of a drastic manipulation of prices of produce. These features in turn indicate how widespread are the influences of the recent fall in agricultural values, and how necessary to take account of the present international facts of the industry before entering further on a competition of subsidies.

Even where, as in America, a very great deal has been done for agriculture—more perhaps than for any other single industry—a problem of “farm relief” continues. Possibly too much has been done; the special problem is that too much is being produced for profitable sale. But in America, the problem of what is profitable sale involves the tariff on agricultural supplies, so that relief takes the form of a claim to equalise the tariff as between importing and exporting industries. This is against any view that the tariff has lowered prices in the end; by one method or another it is sought to obtain a compensatory increase in agricultural prices.

There is a detailed account in Professor Boyle's book of the McNary-Haugen plan, which was for several years the main plan before the country. An equalisation fee was to be collected on the whole output of a product, out of which a loss on export was to be met; it was to be worked mainly through co-operative agencies and the Farm Board. A revolving fund was to be primed by an advance from the Federal Government. The report of the Attorney-General on this plan is an interesting and incisive one, and Professor Boyle further elucidates its defects. Many of these are common to the debenture plan—that it will stimulate production, that it will fall unequally on farmers of different capacities and facilities, that about 40 per cent. of agricultural produce is consumed within the industry itself. Besides, a surplus is not “disposed of” when it has been bought and stored. The whole machinery of crop estimating must have its effect on prices.

The debenture plan is a more interesting manipulation. Exporters of “debenturable” produce will receive certificates for each unit of export, valid for (probably) half the tariff on import, and receivable by the Treasury in payment of import duties by any other persons. Mr. Davis estimates the cost at about 20 per cent. of the customs receipts. He points out that this would have an important reaction on high tariff policy, which would more easily obtain the support of agricultural interests. It would seem also that the agricultural tariff itself—even if widely inoperative in an exporting country—must be affected by the forcing of export; a net exporter may be a substantial importer at certain places, and at these places the home farmers' prices must meet a strengthened power of foreign import or re-import. This is not the only complication in the question of the reflection back to the farmer of the export premium. In a chapter which is itself a valuable economic analysis, Mr. Davis shows how diverse

are the conditions that are included under the title of a single crop like wheat. Some grades are for the home market, some for the foreign market; the handling of the produce has numerous important reactions; the benefit would not be a general one, but of diversified incidence.

In the view of Mr. Davis, there would not in the end be very much to choose between the two plans, if farming still needed large-scale relief. But both, apart from the uncertainties involved in plans of so large a scope, must take account, not only of depression of price in the world's market, but of course of reprisals. Mr. Hoover thought that the debenture scheme "contained elements which would bring American agriculture to disaster." Mr. Davis concludes only that it will not really bring about the equality it aims at, and that "its largest fruit would be bitter disappointment." These conclusions are in themselves negative, but must be read alongside the policy already in force for assistance to agriculture in America.

These books repay study, because proposals of this kind are a sort of test question which brings out aspects of organisation and interaction which are of great economic interest. Professor Boyle's book is largely concerned with description, and his tabulations are exceedingly clear; Mr. Davis has set himself a critical analysis which is carried out with masterly skill.

D. H. MACGREGOR

Marketing: a Farmer's Problem. By BENJAMIN F. GOLDSTEIN.
(New York: The Macmillan Company. 1928. Pp. xiv + 330. 15s.)

From the standpoint of English readers a more informative title for this book would be "The Legal Aspects of Grain-marketing in the United States of America." For not only does it contain no reference to European conditions, but, as its author is a barrister, the legal position of those who handle and deal in cereals is discussed to the virtual exclusion of economic and agrarian factors. Not that it is thereby of inferior value to the student of international problems; there is, indeed, space for just such a work upon the shelves of departmental libraries in this and many other countries, if for no other reason, that it places in their correct perspective the corresponding problems met with in Great Britain and elsewhere. Those persons who are constantly proclaiming the need for a reorganisation of our systems of marketing agricultural produce in general will find here little material with which to reinforce their arguments, but, on the other

hand, anyone who has studied the present position of our grain and milling trades, and who also bears in mind the altered conditions brought about by the existence overseas of great holding and selling organisations, will have food for serious thought. Approximately two-thirds of our flour is being milled by a handful of combines; the number of corn-merchants and dealers steadily declines; large-scale mills tend to concentrate at the ports of entry. Before rationalisation, or modernisation, whichever we prefer to call it, has proceeded much further in the case of such a commodity as wheat, it will clearly become the duty of the State to investigate the problem as a whole, and in this connection the experience of America is bound to be of value. At first Mr. Goldstein covers familiar ground, in tracing the development of rail communication to the Gulf ports and the emergence of the elevator companies, but he soon enters upon the intricacies and niceties of the laws relating to custody and inspection of grain, as well as of those covering transport. He naturally has a good deal to say about the legal interpretation of "mixing." "Futures Trading" necessitates, by way of illustration, the quoting of figures that are almost astronomical in their range, and it will surprise many English readers to learn that the legality of these vast activities (which still continue to expand) was "not definitely established until 1903, when the Supreme Court of the United States upheld the operation as having a legitimate economic value." Corners, according to Mr. Goldstein, have given place, "for the present, to a continuous method of marketing as part of the daily operations of the grain trade"; the relatively declining influence of the United States as an exporter of wheat, together with the increasing supplies being placed on the world's markets from Canada—not to mention the Southern hemisphere—are, however, factors that, in this connection, receive due recognition in his pages. A brief reference to the Grange movement affords the only occasion upon which the producer's attitude to combination is discussed, and the trend of American agriculture from 1870 to 1890 is compressed into nineteen lines of text, while at most eight pages are devoted to what might legitimately be termed "The Farmer's Problem." It is interesting to note, however, that recent developments in the marketing of Canadian cereals, referred to in a foot-note to p. 276, are ascribed to the "exporting basis upon which marketing and warehousing machinery has been built up," the peculiarly suitable topography of that country and the absence of "constitutional restrictions"; Pools, in the United States, it is to be inferred, would lack these advantages.

Finally, considerable criticism is directed towards the methods of grain-selling at present in vogue, the author holding that during the last decade conditions have been so modified that much that before the World War was efficient and effective has now become unduly complicated, bears heavily on the producer and in many technical matters is out of date. He calls, in effect, for drastic revision of the grain laws, and anyone who has conscientiously followed his enumeration of existing legislation will, on various grounds, be convinced that he has made good his appeal. The book is splendidly documented, but lacks an index. As hinted at above, it bristles with references to legal cases and statutes, while individual Appendices contain, respectively, an Article on the constitution of 1870 (Warehouses) and various House Resolutions and State Orders. Co-operation with either an economist or an agriculturist in the production of a supplementary volume would enhance the admitted value of the present work to readers situated on this side of the Atlantic who have little knowledge of America's legal problems.

J. A. VENN

Trust and Corporation Problems. By H. R. SEAGER and C. A. GULICK. (Harper Bros. Pp. 719. 12s. 6d.)

THE title of this book indicates that the authors have placed the Trust problem, in its relation to the economic and legal development of the unit of business enterprise in America and elsewhere. They include a critical account of the German system, and give its place, now an important one, to the Trade Association. These Associations, together with the regulative influence of the Federal Trade Commission, are rapidly changing the conditions of the case for amalgamations, in some ways rendering the argument less convincing than in the beginning of the century, and at the same time making the competition of units of all sizes more tolerable. This is much more than another survey of the history of Trusts; it is a new interpretation of the environment of that question, showing how the law keeps pace with economic events, the events having the lead, to which law and public opinion have been adjusted.

The importance of this point is made clear from the historical survey. In the early days, men were said to promote combines; and the authors note the fact that the promoter was even then usually someone coming in from outside to carry out a special function. In these latter days, men are said to rationalise industries; and the idea is revived that the rationaliser has to come in specially to do it. It is quite an old story, with the names

altered; but the alteration of the names covers a change of attitude. The events have gone ahead of public and economic opinion; the combine has made itself accepted as a rationalisation; the catalogue of the economies of Trusts, as presented to the Industrial Commission of thirty years ago, is the present-day catalogue of the economies of rationalisation in our own great industries. In America, the progress of the law on combines has no doubt had much effect on public and economic opinion, for there is no doubt about its activity; in this country, the economic changes have forced themselves, and the law has ground to make up.

This is a critical book, though in the end coming over to the side of the combines. Comparing it with the books that were written at the time of the Trust movement of 1897-1903, to which the authors give a quite special significance, one is compelled to look forward. Is the position as they now see it a stable one? They do foresee the problem of international combines, and prefer them to tariff measures for dividing the market; but can this be got over so easily? No doubt, international agreements are affected by the degrees of tariff protection that exist: to that extent, the policy of the nations has a control: but as yet there has been no real facing of the problem how far the national policy can be privately superseded, and here is one of the cases where events are much in the lead. Against this momentum, the Geneva Conference could not do much: but it is one of the next questions. Again, is the position stable as regards the influence of organised labour? The authors' examination is purely capitalistic: but do not the great combines both require, and offer the opportunity for, a shift of the question of labour's share in control from the impossible field of the single business to that of the industry? How is this going to work out? To say that the capitalist takes the risk is only to say that he performs his own function: nothing comes of that, while others also have functions.

The authors believe that much is to be gained in stability of prices by the wider regulation of large enterprises. This, as they see, must be such as also to mean stability of industry: and it is probably true that a combine in, for example, coal, can by its price policy put more pressure on the whole of industry than the banks can by the price of loans. The special incidence of the price of money is on the dealer, but this check can be evaded by the increasing integration of merchanting by the manufacturers. Of course, the solution of one question in this way raises others: such combines will have exceptional power, and the external

regulation of their policy is less effective than that which comes from a more than capitalistic inside control.

This book is easily a standard work, the product of immense and careful research. Could the authors supplement it by a study of the public monopolies in Europe and elsewhere, a chapter of the subject which waits to be written?

D. H. MACGREGOR

Daniel Webster as an Economist. By ROBERT LINCOLN CAREY.
(Columbia University Press and P. S. King & Son. 1929.
Pp. 220. 14s.)

DANIEL WEBSTER (1782-1852) was a lawyer by profession and, in his day, a leading authority on constitutional law. He is regarded by Americans as one of their greatest orators, and by some of them as an eminent economist. In this book, Dr. R. L. Carey arranges in an orderly and able manner the results of his careful examination of the voluminous speeches and writings—in all 127 speeches and 22 pamphlets and miscellaneous papers—in which Webster's economic theories and opinions are to be found. Although he was "profoundly interested in the progress of economic thought and investigation," and, in fact, much influenced by it, Webster professed disdain for the doctrines of the academic writers on political economy. "For my part," he wrote in 1830, "though I like the investigation of particular questions, I give up what is called the science of political economy. There is no such science. There are no rules on these subjects so fixed and invariable as that their aggregate constitutes a science. I believe I have recently run over twenty volumes from Adam Smith to Professor Dew of Virginia, and from the whole, were I to pick out with one hand all the mere truisms and with the other all the doubtful propositions, little would be left." In particular, he was repelled by any abstruse generalisations which seemed to him to be divorced from reality. He distrusted the deductive method, and in his own speeches and writings "wherever possible he substantiated his argumentation with abundant statistical and historical evidence."

Webster never wrote a systematic general treatise on economics. Had he done so, the claim that he was "a very able economist" might have been more firmly grounded; for assertions, theories and doctrines which will pass well enough under artificial light before a popular audience, often appear to be poor, flimsy, defective stuff seen in broad daylight on the printed page in company with others uttered under similar conditions at a

different time. For example, Webster could scarcely have maintained *after reflection* his observation that by inventing and making machines science multiplies labourers, by which he meant labour power, without multiplying consumers. Much, of course, depends upon the kind of machinery; but all machines consume some commodity or commodities. If Webster had ever owned a motor-car he would have known this well enough.

This book confirms beyond peradventure the view that Webster was a typical nineteenth-century individualist and an optimistic believer in natural harmonies in the economic sphere. "The general sense of this age," said he, "sets with a strong current in favour of freedom of commercial intercourse and unrestrained individual action." "As there is an order in the natural world holding all things in place . . . so in the social world there is a principle of regulation, a sort of *vis medicatrix naturæ*." Curiously enough, it seems that Webster held this view as strongly when he had become a protectionist as he did when he was a free trader, and one is prompted to inquire whether he thought protective tariffs "natural," and if so, why? This optimistic naturalism caused him to over-estimate the pervasiveness of pure competition (great as it was in the United States in his day) and the extent to which wealth is "subdivided" and diffused under the influence of competition and free enterprise.

Private property also he regarded as "natural," and such a massive "bulwark against radicalism and revolution" that everyone ought to have opportunity to acquire property rights. But, unfortunately for the future prospects of Webster's economic faith, although the rights are conveniently natural, the acquisition of them evidently is not. *Laissez faire* does not create, and would not perpetuate, even a rough equality in the distribution of property and prosperity. With Webster's ideal—a whole nation of propertied and prosperous people all emancipated from the necessity to toil incessantly to gain merely the bare means of subsistence—few will feel disposed to quarrel; but his wisdom in putting his trust in free competition and "the beneficent spirit of individualism" is not on a level with his idealism. It is only fair, however, to point out that he favoured inheritance laws which would break up property as fast as it accumulated.

On certain matters, as Dr. Carey shows, Webster had misgivings, and honesty and public spirit enough to declare them. "In 1845, for example, during the early period of American railway development, he decried the inflation of stock values for the benefit of the promoters as a departure from sound business

enterprise and as one of those few instances of 'private interest unconnected with public improvement.' In the case of the railway industry he asserted that competition and self-interest may become 'destructive' of public welfare." Furthermore, "the actions of some state banks in over-issuing depreciated paper money, motivated by considerations of self-interest, he held to be detrimental to social welfare by occasioning increases in prices and adding to the fever of speculation. . . . He did make a few mildly expressed references to unscrupulous factory owners who deliberately exploited their defenceless women and child employees. In general, however, he looked as complacently upon the factory system as he did upon the competitive order, with a readiness to magnify the benefits of both and to minimise or ignore their disadvantages." Labour unions, also, called forth his censure "because he thought them to be conspiracies to injure public welfare for the benefit of their own members."

Undoubtedly Webster was at his best on currency and credit. His conservatism kept him on the side of sound currency and prudent finance, he wielded an important influence in his own country, and his views on convertible paper were, I believe, on one occasion quoted with approval by Lord Overstone before a Select Committee of the House of Lords. "He demanded that the monetary system possess one quality above all others—stability." The exchange medium of a nation must not be "liable to vibrate with opinion or be blown up or down with the breath of speculation." He had no objection to notes so long as the issue was properly covered and managed. Indeed, he went so far as to assert that "no enlightened writer or practical statesman" in any country would substitute "a metallic currency for a well-regulated and limited paper currency resting on adequate specie basis." He abhorred inflation, realised the supreme importance of maintaining public confidence, and laid it down that immediate convertibility into specie was immeasurably the best (and probably the only) method of preventing depreciation of a paper currency. Quite rightly he looked upon the currency question "not merely as a financial problem, but as a social issue directly affecting standards of value, property, prices, labour incomes and the exchange rates."

In Part III ("Economics of Exchange") Dr. Carey devotes two chapters to Webster's "tariff views," drawing a dividing line at 1828. It appears to me that Webster's views upon the tariff question after 1828 are not worth very much. From 1814 to 1828 he had argued with eloquence and good sense against a general

policy of high protection. "I do not admit," he said, "the general principle; on the contrary, I think freedom of trade to be the principle and restriction the exception." In 1824 he had fought Henry Clay's high protective tariff bill point by point; he had raised powerful theoretical objections; he had appealed to foreign experience, and he had covered the so-called American system with ridicule. Yet his "second celebrated tariff speech as a member of Congress was delivered (in 1828) in support of . . . high protection." After 1824 New England had launched upon an industrial career, so Webster changed his views to suit his constituents and "became virtually a collaborator with Clay as an advocate of high tariffs and the American system." From this point Webster's pronouncements on the economic effects of tariffs became one monumental muddle. Not only did he refute his own pre-1828 arguments, but after 1828 his speeches abound in ambiguities and contradictions. While Dr. Carey is, in this section, not entirely uncritical, he is, I think, far too lenient to Webster. However, probably he is right not to allow his own views to get in the way of Webster's, so that readers may be very largely at liberty to form their own opinions.

On the general question of Webster's importance as an economist Dr. Carey's claims are marked by similar modesty. His considered opinion is that although Webster usually showed distinct ability in handling specific economic problems, "it cannot be maintained that (he) was an economic theorist of great significance"; his "contributions to economic thought are not creative in the sense that they represent original conclusions drawn from dispassionate and independent study of economic questions." Webster was never the disinterested scientist, but always the advocate fighting his way through a specific economic case with which Americans were faced then and there.

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RECENT ITALIAN ECONOMICS.

Scambi internazionali e politica bancaria. By A. CABIATI. (Torino: Fratelli Boccà. 1929. Pp. 297.)

1919-1929, *Da Versailles all' Aja.* By A. CABIATI. (Torino: Fratelli Boccà. 1930. Pp. 154.)

La politica della congiuntura. By RICCARDO BACHI. (Roma: Fratelli Boccà. 1929. Pp. 148.)

Le teorie monetarie e il ritorno all' oro. By GIOVANNI DEMARIA. (Torino : Fratelli Boccà. 1928. Pp. xiii + 239.)

La teoria economica del rischio e della assicurazione. Volume primo. By FEDERICO CHESSA. (Padova : Cedam. 1929. Pp. 318.)

Di alcune influenze del tempo sul valore. By BRUNO FOÀ (Milano : Albrighi, Segati. 1928. Pp. 49.)

Critica Ricardiana. By AUGUSTO GRAZIANI. (Modena : Presso L' Università degli Studi. 1926. Pp. 31.)

ITALIAN economists are wont to complain that their writings are too little known by their colleagues in other countries. It is strange that this should be so, for their language, though less generally studied than French, German or English, must be familiar to the many foreign travellers who are accustomed to spend holidays among the lakes and mountains of Italy, while its acquisition presents no particular difficulties. It is the more to be regretted that such should be the case, as in one important branch of Economics, at least—Public Finance—the Italians are admittedly masters, and their contributions in other fields are often deserving of a consideration which they are not likely to receive widely outside their own country unless, as in the case of certain works of Pareto, Pantaleoni and Loria, they are translated into a more widely known tongue.

Professor CABIATI ranges over a wide field, from the working of comparative costs under normal and abnormal monetary conditions, to the influence of inflation on movements of capital; the effects of various types of protective duties; banking policy and the foreign exchanges, etc. His method is highly abstract, and his reasoning, which is always acute and vigorous, is conducted along the broad lines of Ricardian analysis. Although the book is a scientific treatise, its conclusions are used to point a moral which has a very practical application: nearly every form of governmental interference with the free working of economic forces is to be condemned, on the ground of its international repercussions—in particular, protective duties and “managed” currencies are anathema. At a time when many English economists appear to be increasingly attracted by the possible advantages of State control over economic activities which have hitherto been allowed free play, it is interesting to read such an able and uncompromising restatement of the case for *laissez faire*. Professor Cabiati's book is certainly the most important Italian contribution since the war to the theory of foreign trade and exchanges.

In a much smaller work, *Da Versailles all' Aja*, the same author outlines the history of the attempts to deal with the problem of German reparations, and gives a succinct account of the Dawes and Young schemes, with an interesting chapter devoted to the International Bank. It is in accordance with his general *Lebensanschauung* that he regards the payment of reparations as deeply injurious to the economic interests of the creditor as well as of the debtor nations. But some of his arguments in support of this view are open to the criticism, firstly, that he seems to have overlooked the fact that the size of the annuities is small in relation to the aggregate volume of international trade, and, secondly, that the annuities cover a sufficiently long period to allow of a readjustment of the productive resources of the creditor countries, thus enabling them to absorb payments made on reparation account. His general insistence on the extreme mobility of resources, internationally, is accompanied in this instance by a certain blindness to the existence of mobility of resources as between different industries in the same country.

Much attention is being given in Italy, as in all countries at the present day, to the problem of the trade cycle. Professor BACHI has written a short book which, though not laying claim to any special originality, is valuable both for its clarity of exposition and because it presents the views of a distinguished statistician and economist on a subject in regard to which a combination of the inductive and deductive methods of approach is of particular importance. Professor Bachi discusses all the chief proposals that are current for the stabilisation of the price level and arrives at the conclusions, firstly, that none of the proposed methods can be sure of producing the desired result; and, secondly, that even if the price level could be stabilised it is very doubtful whether the loss in the long (secular) period would not outweigh the apparent gain in shorter periods. His is not the only voice that has been raised recently in protest against the assertion that a stable price level is necessarily superior to a fluctuating price level. One observation that he makes has a special interest for those who are concerned with industrial conditions in this country at the present time. He draws attention to the well-established fact that the periodicity of the trade cycle in Italy before the war was much slower there than in any other industrial country, and he refers to another work in which he has shown reasons for holding that in Italy there was a rhythmical trade movement covering twenty-year periods. This he attributes in large part to the social and legal measures adopted to prevent bankruptcies, and he quotes

with approval a sentence of Pantaleoni in which the latter laments "the years of permanent crises, of those crises which degenerate into a wasting disease, as is the peculiar characteristic of Italian crises, because neither the Government, nor the banks, nor public opinion, nor our commercial customs, will tolerate liquidations."

Professor DEMARIA has written for the instruction of his countrymen an account of the return to the gold standard in England and of the various monetary theories which have been evolved in this and other countries, under the tremendous stimulus of post-war currency disturbances. He has succeeded admirably in his description of the English banking system and money market, as also in the more general discussion of central bank control over the volume of credit and the price level. He is widely read in recent literature published in four languages and turns his reading to good account. The three pages devoted to Mr. Robertson's *Banking Policy and the Price Level* are a model of lucidity, although Professor Demaria can necessarily deal only rather superficially with a nut which it would take the proverbial steam hammer to crush so as to extract all the oil from the kernel.

In a volume of 318 large pages Dr. CHessa purports to put forward an economic theory of risk. But in spite of a final chapter of conclusions to the number of fifty, there is not much evidence of a theory. The strength of the book lies in the acuteness with which such concepts as risk, chance, gambling, speculation, etc. are classified and defined, but on the constructive side it cannot be said to make much contribution to economic theory. As a whole too much space is devoted to the opinions of almost every modern economist who has dealt with risk in any of its aspects—and it would be hard not to find some reference to risk in almost any economic work. Dr. Chessa would have been better advised if he had made a separate study of the history of the growth of economic ideas about risk, instead of scattering references and quotations indiscriminately throughout his text, without making any attempt to trace the stages of growth or to correlate them with the parallel development of economic structure and organisation.

Dr. FOÀ discusses briefly the influence of time on value on lines which are familiar to students of Marshall, whose classical treatment he follows for the most part. He stresses the distinction implicit in Marshall between time as "a factor of equilibrium which removes and overcomes, in its passing, obstacles of various sorts"; and time as "a factor of dis-equilibrium, inasmuch as its passing causes or accentuates new disturbances due to its specific

influence"; but he does not develop the distinction at any length. A great deal of the argument is devoted to the doctrine of quasi-rent, but here the author seems to have gone astray owing to a too diligent collation of the successive editions of Marshall's *Principles*. He points out rightly that at first Marshall appeared to regard quasi-rents as the reward of differential advantages of production of a temporary character, while later he was inclined to stress the importance of the fact that the stock of appliances made by man is fixed in the short period—i.e. to emphasise rather the scarcity than the differential element in quasi-rent. But Dr. Foà himself cannot get away from the earlier conception and never grasps quite clearly either the precise nature or the implications of the doctrine in its final shape, and it is surely by this that Marshall should be judged. Dr. Foà is in error in attributing to Marshall the use of the terms "positive" and "negative" quasi-rents.

The title of Professor GRAZIANI's pamphlet is a little misleading, for it does not contain a critical discussion of Ricardo's work, but a brief and very well written appreciation of the debt owed by economics regarded as a science to Ricardo as the greatest and most original constructive thinker in the history of the subject. One curious mistake may be noted at the top of p. 4, where, by what can only be a *lapsus calami*, the sense of Ricardo's teaching as to the effects of a rise in wages on the relative prices of commodities which are produced with varying proportions of fixed capital, is exactly inverted. As expounded by Professor Graziani, a rise in wages would, by its effect on the rate of profits, cause a rise in the relative prices of those commodities in whose production fixed capital plays a large part, whereas Ricardo (in Chapter IV of his *Principles*) in fact contends (quite logically on his assumptions) that in such cases prices would fall. Professor Graziani concludes: "The work of Ricardo stands as a monument of creative power, as one of the most solid milestones along the path of scientific research, and as the most memorable product of the human mind in the field of economics."

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Encyclopædia of the Social Sciences. Vol. I. (Aar-Allegiance.)
With two Introductions. Edited by E. R. A. SELIGMAN and
A. JOHNSON. (Macmillan: Pp. 646: 31s. 6d.)

THIS is the first of fifteen volumes of a work which is both sponsored and edited in a way to secure its position as the authori-

tative work of reference in the English language. The project, as the Preface explains, is not so much to deal with the technique of the special sciences, as "to bring out in the respective topics the relations of each science to all of the other relevant disciplines. Accordingly, we endeavour to include all of the important topics in politics, economics, law, anthropology, sociology, penology and social work." In the case of the semi-social sciences—ethics, education, philosophy, and psychology—those topics are selected of which the social aspects are acquiring increasing significance. In a work whose fundamental idea is the co-ordination of the social sciences, and the indication of their relations to the general movement of thought, much will be included which would be omitted in more special encyclopædias.

The work will include the characteristics of both a dictionary and a handbook (of the German kind). "The alphabetical method is followed, but the arrangement is so flexible as to contain not only short articles, but also longer articles of ten or twenty thousand words, which will permit of thorough-going and original contributions."

A special feature of this first volume is the Introduction. Under the general title of the *Development of Social Thought and Institutions* there are contributed twelve articles which mark the historical growth and significance of the fundamental ideas which have been moving forces in social thought. It would be impossible to attempt any review of these; the range extends from Greek and Roman culture and thought to the re-orientation of the period since the Great War. In all of them the conception of history as moulded and changed by the force of ideas is dominant; ideas at different stages, cultural, religious, liberal, material, and international. To economists, the articles of more special interest are those on *Individualism and Capitalism*, by C. A. Beard; *Nationalism*, by Carol Brinkmann; *The Trend to Internationalism*, by R. M. MacIver; and *War and Re-orientation*, by the Editorial Staff. The second part of the Introduction is a review of *The Social Sciences as Disciplines*, with reference to the position and tendencies of study in different countries. In the text of this volume, the largest space—over a hundred pages—is devoted to agricultural questions.

The Editors and their colleagues may be assured of the gratitude of economists during their labours on this great enterprise.

D. H. MACGREGOR

Introduction to the Mathematics of Statistics. By R. W. BURGESS.
(London : Harrap & Co., Ltd. 10s. 6d.)

THE purpose of this book is to present a general but elementary outline of the best methods of statistical analysis : general, in the sense that the treatment is not related particularly to any one branch of science, to be fully appreciated only by experts in that branch ; elementary, in that it demands no knowledge of advanced mathematics. The emphasis laid on certain parts of the subject and the order of treatment is perhaps unusual, but it is refreshing. Occasionally too much space is given to methods which are not the best, although the author is generally careful to point out quite justly the advantages and disadvantages pertaining to alternative methods. Also, the symbolical exposition is not always what a mathematical purist would term elegant. Many people are as fearful of symbols as an untravelled Englishman is of venturing to speak in any tongue but his own. They would be tempted to skip the theory in the text and try to unravel the threads of it for themselves with the help of the numerical examples provided. These examples, worked and unworked, are excellent. Those that are not worked would be still more useful if answers to them could be given, where necessary, in a later edition. Anyone who was prepared to sit down to some concentrated reading and who would apply the knowledge thus gained to working out all the examples in the book would undoubtedly benefit by the process and find that he had a new and highly interesting technique at his command.

Dr. Burgess writes with the authority of one who has had considerable experience in the practical use of statistics, and his book can be warmly commended.

D. CARADOG JONES

The Problem of Interest and its Relation to Currency and Debt.
By ERNST DICK, Ph.D. (Williams and Norgate, Ltd. 1929.
Pp. 381. 18s.)

THERE are few sentences in these three hundred and eighty pages with which readers of this JOURNAL will be able to agree. The character of the writing may be illustrated by some random examples. "Interest is an affection of the human will ; it is desire, appetite, and the rate of interest is an expression of the urgency of the desire ; if the desire is strong, and consequently the rate of interest tends to rise, the prices of goods must also rise. But if the price of goods rises, the value of money declines : it varies inversely, not directly, as discount " (p. 6). "The rate

of interest may be considered as the natural and concentrated expression of the level of prices." "The urgency of demand does not necessarily vary with supply, but obeys its own laws." "Demand is the same thing as desire, or interest, for goods" (p. 51). "Supply is determined by demand, which is simply another word for interest" (p. 74). Later on, the author complains of "the failure of economists to realise that wages and the rate of interest are exactly the same thing, namely, the basic price of goods, so that any development that curtails one also damages the other" (p. 125). "In the last resort price is a spiritual phenomenon, namely, the expression of the average interest which the economic subjects feel and manifest for goods" (p. 51). After distinguishing two senses of the word "interest" the author says that "interest in its special or technical connotation (interest which is paid) is the same as interest in its spiritual sense (interest which is felt)" (p. 55). "If the science of economics had a true theory of interest it would rise in protest against" such things as old age insurance (p. 160). "Poverty is relative, a mere notion" (p. 220). "In some form or other all the economic systems that have been in vogue have been hostile to interest" (p. 311). "Interest is everywhere the same, and it has been the same all down the ages—by which I mean that it has oscillated round an unalterable figure" (p. 365). "During the heyday of the guilds, interest was controlled, that is to say, suppressed, controlled out of existence and recognition" (p. 371).

The central point of the book is a challenge to the orthodox theory that a rise in the rate of discount tends to lead to a fall in prices, while a fall in the rate tends to lead to a rise in prices. From the author's point of view stronger support might have been brought forward, since a high correlation can be established between high discount rates and high prices. It has apparently been pointed out to the author what difficulties arise in a correlation of this kind. Extracts are given, apparently without permission, from a correspondence between the author and Prof. Pigou. But the author is unconvinced. His solution to the problem of how the value of money may be stabilised is to stabilise the rate of interest. "It may be objected that the English pound, and the French franc, and the German mark, and the Italian lira have all been stabilised, and some of them even made to appreciate, through the imposition of high discount rates. Do not let us be deceived. It was not the discount that did it, it was the application of main force" (p. 34).

Again, public debts are no burden. The repayment of them

produces deflation. "A Government which sets out to pay off debts is forced to augment its revenue, unless it can manage to retrench on its expenditure. The latter course, which implies wage cuts more than anything else, has clearly a deflationary effect, seeing that wages and salaries are prices; the former course implies the creation of new taxes or the increasing of existing ones, which cannot but tend to raise prices, seeing that taxes are prices and an element of price. Thus the idea of debt redemption is proved to be inherently contradictory" (p. 130). Trouble arises both when taxes are reduced and when they are increased. But the solution is clear. "An economic world conference . . . ought to lay down rules to enforce a policy making for the stabilisation of taxes" (p. 133. Author's italics).

D. T. JACK

A History of Indian Taxation. (Macmillan. 1930. 531 pp.)
Provincial Finance in India. (Macmillan. 1929. 367 pp.) By
 PRAMATHANATH BANERJEA, M.A., D.Sc., Minto Professor of
 Economics in the University of Calcutta.

It is rather difficult to understand why this *History of Indian Taxation* has been published. It does not seem to contain any information of value, even for examination purposes, beyond what was previously available in easily accessible publications; e.g. in Prof. Vakil's *Financial Developments in Modern India*, which is much fuller, more lucid, and more convenient for use. Nor is there any commendable novelty in the manner of treatment. The chief point of departure from its predecessors is that the history of taxes only is dealt with, the corresponding history of expenditure being omitted, and this is certainly the reverse of an improvement. Minor peculiarities are that a summary of the discussion on the advisability of introducing an income tax into India and the well-known controversy between Sir Charles Trevelyan, the Governor of Madras, and the Central Government on the subject is given; and the order in which different heads of revenue are discussed is unusual, land revenue being deferred to Chapter VII.

Prof. Banerjea is chronologically a link between the old and the new school of Indian publicists on such subjects as these. The old school, of which Dadabhai Naoroji and Romesh Chunder Dutt were the leaders, was essentially polemical, and studied Indian history and economics with the object of effecting political change. The new school consists of young men, or men in early middle age, who realise that the destinies of India are in the hands

of Indians, and who therefore devote themselves to constructive work. Prof. Banerjea's work largely misses the positive qualities of either of these schools. As a result there is a certain vagueness, what in painting is called woolliness, about his presentation of facts. Thus, for example, after quoting Sir William Hunter's remarks in 1880 on the smallness of Indian taxable capacity, he continues: "The level of taxation in India has risen largely since Sir William Hunter made these observations, but it is difficult to say whether there has ensued a proportionate improvement in the material condition of the people during this period. . . . The late Mr. G. K. Gokhale remarked that . . . the bulk of its population was daily growing poorer under the play of the economic forces which had been brought into existence by British rule. There are many politicians and economists who hold the same view even at the present day. On the other hand, not a few officers of the Government appear to entertain the opinion that India is making rapid strides on the road to wealth and prosperity." And so, having cited alleged extreme opinions on both sides (who the "economists" are who believe that the bulk of the Indian population is daily growing poorer, or the Government officers who think that India is making rapid strides towards wealth and prosperity, it would be indeed hard to say), Prof. Banerjea declines to take the responsibility of expressing an opinion of his own, and even abstains from stating the obvious facts with regard to the relation between taxes and taxable capacity. These are—(1) in rupees the tax revenue is now roughly double as much as in 1880, but the rupee has fallen both in gold value and purchasing power; (2) the development of commerce and industry, the building of railways, the execution of great irrigation works, and, in general, the "play of economic forces," have, since 1880, created a new wealthy class, and increased taxable capacity in a far greater ratio than taxation; (3) the bulk of the population, nevertheless, is still in much the same economic condition as then, living close to the margin of subsistence. And as these things are so, the problem of Indian taxation is to adjust the burden to the taxable capacity of different classes of taxpayers, and so to obtain the resources necessary for improving the economic and moral status of the bulk of the population. Prof. Banerjea's plan of treatment militates against the serviceableness of his work in the elucidation of this problem.

It is, on the other hand, quite easy to see why *Provincial Finance in India* has been published. It is an exposition of the

Bengal case against the present distribution of sources of revenue between the Imperial and Provincial Governments, by which the Empire receives the proceeds of Income tax, Customs, Opium and Salt taxes, and the Provinces Land Revenue, Stamps and Excise. Bengal, with its fertile soil and unfailing monsoons, is agriculturally potentially the richest part of India, but it has a deplorable system of land tenure, and its provincial finance is crippled by "permanent settlement." If only the absurd theory that because in the eighteenth century the East India Company promised not to take more than certain definite sums from the Bengal Zemindars for the benefit of its shareholders, the Legislative Council of Bengal is prohibited from taxing a wealthy and parasitic class, were now abandoned, the Bengal Government would have larger financial resources than those of the other provinces. Prof. Banerjea, instead of advocating this solution of the problem, advocates proposals which will appear to Indians generally an inequitable subsidising of Bengal at the expense of the poorer provinces. Here again he fails to throw much light on the essential problem of Indian provincial finance, which is, *how much* increased revenue the provinces need in order to discharge effectively their duties in relation to public health, education, etc.; and how to obtain that increase.

GILBERT SLATER

Human Factors in Cotton Culture. By RUPERT R. VANCE.
(London : Humphrey Milford. Pp. xi + 346. 13s. 6d. net.)

THIS is one of a series of social studies published by the University of North Carolina Press, and it comes at a very opportune time, for several things have been happening in the last few months to attract attention to the extraordinary state of affairs in the American Cotton Belt. The crux of the whole position is the intolerable social conditions under which the great majority of the farmers in the American Cotton Belt are living, and it must be understood that this applies to white men as well as negroes. Lest the state of affairs described by the author should be regarded as in any way exaggerated, it may be well to mention an official report recently published by the U.S. Department of Agriculture on the income and standards of living in 1924-26 of a group of white farmers in Gwinnett County, Georgia, a typical cotton county in the Piedmont district, farmed mainly by whites. The return on which this report was based covered 288 typical farmers, of whom 94 were owners and 194 tenants or croppers, and the gist of the whole report may be condensed into one figure,

that the total income of these people (deducting interest on capital in the case of the owners, but adding the value of the food and fuel furnished by the farm, as well as the rental value of their houses) averaged only 683 dollars *per family*, or say £140 for a family of five! In comparing this with the average income of farmers in England, it must be remembered (1) that the cost of living is higher in America, and (2) that this is an average including owners, tenants and "croppers," but if the latter only had been taken, especially the croppers, the position would have been infinitely worse. The conditions under which many of these white farmers live, as the present reviewer has himself seen them, are incredibly bad, and it is well that they should be known not only outside America but also in the other more prosperous parts of the industrial north in America where they are just about as little known.

The causes of this extraordinary state of affairs are perfectly well known. They may be summed up as (1) the boll weevil and (2) bad farming. The boll weevil has reduced the average yield for the American Cotton Belt as a whole from something over 200 lbs. to little over 150 lbs. an acre in an average year. Bad farming and the vagaries of the climate are, of course, responsible for a great deal. Good land well cultivated ought to yield at least 500 lbs. an acre, and could be made to do so even yet if weevil were properly controlled. But the most serious fact of the whole position is that the weevil has affected not only the quantity but also the quality of the yield. The only way to evade the worst of the damage is to grow early maturing varieties, but these are generally of short staple and poor quality. In recent years the amount of this short-stapled cotton produced in the Belt as a whole has increased very rapidly, and in Texas it has practically wiped out the old staple varieties on which Lancashire was once so largely dependent.

With so strong a case it must be admitted that the author has not made his presentation of it nearly so convincing as it might have been. The fact is, he has not told the whole truth, which is that these conditions are largely preventable and that the worst feature of the whole business is the apparent impossibility of getting any reform seriously tackled. The boll weevil *could* be controlled, but only by co-operative action, which seems to be even more difficult in America than it is in this country. As to their farming methods, *e.g.* the almost universal one-crop policy of cotton and nothing else, all their own authorities have been telling them about this for a quarter of a century, but almost

without effect. The lack of rotations, the failure to use fertilisers, the almost complete absence of cattle or mixed farming, and the utter neglect of the most ordinary methods of soil preservation, are all conditions which the merest child in agriculture knows can only lead to one result, the impoverishing of the soil and of its cultivators. Everybody in the Cotton Belt knows all this, but nothing is done. Year after year these miserable farmers struggle on under their hopeless burden of debt, from which they can only hope to escape by "quitting," very often surreptitiously, and trying again somewhere else. A good year just about enables them to break even. Why they continue to live under such conditions is almost beyond comprehension, and indeed can only be explained by the same utterly shiftless character that has produced these conditions.

All this may sound very strong language, but anyone who knows the Cotton Belt and the conditions under which the most of the country population are living, *i.e.* outside of the towns, will know that it is true. Mr. Vance's book is not such as to command a very wide public in this country, which is to be regretted, for a really adequate statement of the whole facts of the case, along with a discussion of the causes and the remedies, ought to be widely circulated in every country where American cotton is consumed. In the meantime the book provides an extremely interesting object lesson in what to avoid in our own Empire cotton-growing fields.

JOHN A. TODD

Labour and Internationalism. By LEWIS L. LORWIN. (London : Allen and Unwin. 1929. Pp. 684.)

MR. LORWIN has written a straightforward history of the activities of international Labour societies from the birth of the First International in 1864 to the intricacies of the post-war period, with the Second, Two-and-a-Half and Third Internationals in the political field, and the Amsterdam, the Red, and the Christian Federations representing international Trade Unionism, not to mention the International Trade Union Secretariats, the recalcitrant Syndicalists with their International Working Men's Association in Berlin and the medley of Youth Organisations, Sports Federations and the like.

On the whole Mr. Lorwin tells his tale competently, though without evidence either of vivid inspiration or of the discovery of much new material. Chapters in this story, particularly the struggles of the First International and the wild hopes and

conflicts of the reconstruction period after the war, are romantic and exciting. The chief defect of Mr. Lorwin's book is that it makes too little of this romance, tending rather to degrade every incident to a common level of matter-of-fact negotiation and organisation. Nevertheless, the author has accomplished a task of no small difficulty in making a consecutive and intelligible tale out of such complicated matters as, for example, the fruitless efforts of the Anglo-Russian Committee of 1925-27 to mediate between the Red Trade Union International and the suspiciously bourgeois Union leaders of Amsterdam.

Mr. Lorwin's final chapter on "Horizons Ahead" has no very definite conclusions to offer. He thinks that the internationalisation of Labour activities in the immediate future will be held in check by a strong pull towards what he calls "Labour nationalism"—namely, the tendency to defend the standards of high-wage countries by such policies as protective tariffs, control of immigration and concentration on improvements in the efficiency of labour to avoid wage reductions. National Labour parties and Trade Union organisations cannot but perceive the attractions of these policies, and their interest in uniting the workers of the world may be proportionately weakened. One fact, moreover, which stands out conspicuously from Mr. Lorwin's whole story is the predominantly European character of all international Labour activities. Africa, Asia and Australia count for little more than names in pious resolutions, while American Labour abandons with difficulty its proud isolation (plans for the affiliation of the American Federation of Labour to the Amsterdam International being perpetually frustrated by the reluctance of the Americans to pay the capitation fees agreeable to Europe!).

A number of minor inaccuracies and misleading statements disclose themselves in the course of the book. Unimportant in themselves, they are just sufficiently numerous to raise misgivings as to what may not lurk undetected. Thus, Mr. H. G. Wells will be surprised to find himself numbered amongst the founders of the Fabian Society; and the I.L.P. hardly less surprised to learn that they follow in the footsteps of Sidney Webb. Again, reference is made to the three Commissions into which the International Economic Conference of 1927 divided itself as though they were permanent bodies. And it is claiming rather much to suggest that "President Wilson brought the United States into the war . . . expressly . . . to rebuild international life on the basis of his fourteen points."

Finally, if an English critic may be so bold as to question the American language, must we have "voluntaristic" (p. 425) where "voluntary" would serve as well?

BARBARA WOOTTON

Karl Marx. By OTTO RÜHLE. Tr. by EDEN and CEDAR PAUL. (Allen and Unwin. 1929. Pp. 420. 15s.)

MUCH the best parts of this book are the historical sections. In these are brought together many details of the activities of revolutionary societies throughout Europe from the early 'forties of last century down to the break-up of the First International in 1873. Much of this history, as, for example, that of the Federation of the Just formed by exiles in Paris in 1836 and subsequently converted into the Communist League, is not readily accessible elsewhere in English. In this book it is well told and the reader meets a varied company of revolutionary personalities—exiled and discontented aristocrats, escaped prisoners from Siberia, journalists, proletarians, politicians from France, Belgium, Italy, Germany and Russia—whose names have mostly been forgotten even amongst the leaders of movements of which they were the direct forbears.

Mr. Rühle's estimate of Marx as a thinker is much less valuable. It is difficult to say anything new and useful on this subject: and what Mr. Rühle repeats of old matter is not well chosen or well expressed. To Marx's deficiencies as a human being and as a tactician he is fully alive; but he does not seem able equally to apply his critical faculty to Marx's thought and writings. The book includes many long quotations from the hero's books and journalistic work, frequently unintelligible (at least apart from their context), but always appraised with fulsome admiration. Nor is the selection of passages a particularly wise one. It is surely unnecessary to devote seven pages to a *verbatim* quotation of the Communist Manifesto: and injudicious to add the comment that this document is "as apposite, as true to life, as contemporary, as topical, as if it had been penned yesterday by a man intimately acquainted with our own day."

Nevertheless, the reader who will skip these passages will not go away unrewarded from this book. The picture which it gives of Marx himself, impetuous, impecunious and arrogant, strong in his affections and enthusiastic in his revolutionary programmes, but entirely without self-control or consideration for his family or his most devoted friends, is familiar; but Mr. Rühle has drawn it with new detail. He prints letters from Frau Marx and corre-

spondence between Marx and Engels and others of considerable interest, and has also illustrated his book with a number of exceedingly well-produced portraits of Marx's friends and revolutionary colleagues, including Feuerbach, Lassalle, Liebknecht and a host of others. The author's own attempt to assess Marx's place as man and thinker suffers from over-rigid adherence to a kind of biological variety of the materialist interpretation of history. He is, for instance, determined to associate Marx's sense of inferiority and persecution-mania with the state of his digestion. Nevertheless, the materials which he has brought together in this book should greatly assist his readers to form a just estimate of their own.

Mr. and Mrs. Paul's translation is entirely admirable.

BARBARA WOOTTON

Die rechtlichen Grundlagen des Kapitalismus. Von Geh. Hofrat DR. KARL DIEHL. (Jena : Gustav Fischer. Pp. 63. Mk. 2.)
Ende des Kapitalismus? Von ADOLF WEBER. (München : Max Hueber. 1929. Pp. 104. Mk. 2.60.)

THESE vigorous pamphlets differ in the premisses from which they start and in the definitions which they assign to common terms. They agree in their desire to defend the capitalist system. Both value highly the services which they allege it has rendered in the past. Both hope and believe that it will long continue to flourish. Both attack Marx, Dr. Schmalenbach and Professor Sombart, the prophets of its approaching doom.

The forecast of Marx they consider already refuted by the actual course of economic evolution. They regret Dr. Schmalenbach's theory that the capitalist system is being inevitably destroyed from within—the increase of fixed costs bringing all industrial activity under the control of cartels and thus restricting economic freedom. They refuse to believe with Professor Sombart in the slowing down of economic progress. Science will counteract the tendency to diminishing returns in the production of raw materials and food supplies. Moreover, the spirit of enterprise and adventure is still strong. For its display there is still unlimited opportunity. Their faith in the future of capitalism remains unshaken by his insistence upon the increase in the number of independent workers—craftsmen and peasant proprietors—the growing intervention of the State in the economic sphere, the rise of the public concern and the development of co-operative associations.

Professor Diehl prefers to use the term "capitalist system"

rather than "capitalism," on the ground that the capitalist system is merely a definite historical epoch within the individualist economic system. It has as its distinctive characteristic the unrestricted use of private property. Agreeing with Professor Commons, he regards capital as a legal institution. It is a category of the law of property. Capital represents the legal power to dispose of supplies of goods which are destined to serve for the acquisition of new goods. The foundations of the capitalist system rest on the new legal order which alone made possible the economic freedom and the economic advance of the nineteenth century. Nothing has subsequently happened to invalidate the principles which lay behind this legal order. They hold good to-day. Why then should we feel that this legal order and the capitalist system which is so intimately related to it are menaced with destruction in the near future?

Professor Weber defines capitalism as the system in which independent economic agents work together; invest their capital at their own risk; seek to make the maximum amount of profit; are driven by competition to adopt the most progressive methods. The alleged failure of Bolshevik experiment, the difficulties of conscious economic control, the defective management of public concerns, the limitations of economic democracy—all seem to show the impossibility of socialism. Its aim, however, is the central problem of all economic policy—to provide each citizen with the material means for the "good" life. But to achieve this aim the leadership and organising powers of highly gifted individuals are indispensable. The requisite type of ability and character is most likely to emerge and function under conditions of economic freedom. Hence the necessity for the continuance of capitalism.

J. LEMBERGER

A Case for Laissez-Faire. By JAMES W. NISBET, M.A., LL.B.
(London: P. S. King & Son, Ltd. 1929. Pp. vii + 245.
7s. 6d.)

MR. NISBET is brave and painstaking, but none too convincing. He sets out to champion a lost cause with an armoury full of good old arguments, indisputable facts and at least one new idea. His object is to enlist the support of philosophical and psychological teaching "to reinforce the economic importance of an individuality which has transcended the stage of leading-strings." It is perhaps hardly fair to blame Mr. Nisbet for not being Mr. Keynes, whom, by the way, he accuses of "faulty logic." There has never

in his opinion "been a dualism between State and individual. No bridge is necessary because there is no gulf." This somewhat startling statement is hardly borne out by the remainder of the argument.

A brief historical introduction shows the doctrine of *laissez-faire* arising as a natural corrective to Mercantilism, and calling into being, by yet another swing of the pendulum, the views named, not too happily, Collectivism. The "economic man" was a perfectly justifiable abstraction, which rendered to economics exactly the same kind of service that the skeleton supplied to physiology. The additional postulates of mobility of labour and fluidity of capital were equally near to fact until interfered with by Government and Trade Union action. In spite of all, competition cannot be eliminated: "*Expellas furca, tamen usque recurrit.*" Competition which is equal as well as free comes nearer than any other system to rewarding men for the actual services they render, and the entrepreneur is still capable of achievements which no other agency can rival. Comparing the productive activities of local authorities, statutory companies and private enterprise, Mr. Nisbet finds that municipal management is the least successful of the three. In gas and electrical works, for instance, the mere carcass is attributable to municipalisation, the creative genius has emanated from private enterprise. Both in the production of gas and in railways, government regulation has acted as a discouraging check, thereby leaving a fair field to younger competitive services. A marked feature of modern industrial organisation is the continued existence of the producer of small or moderate size, with his opportunities of direct contact with the consumer, his chance of discovering individual skill and his ability to achieve an optimum position. Overpowering combinations are, in the writer's opinion, mere manifestations of megalomania, and rationalisation to be effective must become international, a consummation which he assumes, without any attempt at illustration or proof, to be impracticable.

He finds hope for the future in the fact that Capital and Labour are not necessarily irreconcilable: the gap between the two has been bridged by the development of a technique of management, and acquisition is not incompatible with public spirit, genuine service and economic chivalry. What is required is a properly "systematised individuality" attainable by the "sublimation of egoistic impulses" towards those objects which bring genuine satisfaction to the individual and the race. The chapters entitled "The Responsibility of the Producer" and

"The Rationale of Consumption" contain much excellent advice on spending, saving and investing, which an intelligent reader might ponder and act on with profit to himself and the community. But how exactly the 48 millions of the United Kingdom are to be induced to "sublimate their egoistic impulses" it is difficult to imagine, nor does Mr. Nisbet give us much beyond pious hopes. The book is interesting though somewhat discursive; a great deal of it is familiar ground, and in the attempt at fair and impartial statement it fails to make as good a case as might well have been made for *laissez-faire*. H. REYNARD

A History of Financial Speculation. By R. H. MOTTRAM. (London: Chatto and Windus. 1929. Pp. xi + 324.)

A FRANKLY disappointing book, almost incredibly badly written. If Mr. Mottram had given us a straightforward exposition, the interest of the subject-matter alone would have commanded a respectful hearing. But though he appears to be full of information he cannot get it out. He floats about and around it, seems to be always on the brink of some interesting revelation, and after much hinting at deep and extensive knowledge, retreats, leaving his reader baffled and disappointed. No doubt the style, which is jerky and inconsecutive and frequently ungrammatical, is partly to blame.

The titles of the chapters are intriguing and there are some good illustrations, not always collated with the text. One might have expected in a volume of this kind to find references to the practices of engrossing, forestalling and regrating, a connected account of the London Stock Exchange, and at least a consecutive description of the South Sea Bubble. The two last-mentioned do indeed figure largely in Chapters III and IV, but their treatment can only be described as a series of excursions in the midst of much irrelevant matter. A chapter on Law and Walpole promises an appreciation of these two outstanding men: there is a fairly coherent account of Law, but with Walpole we return to the method of hints and digressions.

The style of the book is almost intolerably journalese. A Prime Minister—Lord Salisbury by the context—is the "hirsute marquess." "The proletariat had not become vocative." There is a Bibliography which includes among others such diverse authorities as the *Encyclopædia Britannica*, Dr. Johnson's Dictionary, and two books about Tom Paine. But the reader is inclined to wonder how carefully the authorities may have been consulted. Count Corti's two volumes on the Rothschilds, are

included in the Bibliography. Mr. Mottram describes the search of the Rothschilds' house at Frankfort with a picturesque paragraph, all his own, about the "five bright-eyed little boys" whom the French Commissioners found "sharing a garret in which they had hardly elbow-room." The incident, according to Count Corti—and it does not appear that Mr. Mottram has any other authority—occurred in 1809, when the youngest of the bright-eyed little boys was seventeen years of age and the eldest thirty-six. One can only suppose that Mr. Mottram's imagination got the better of him. The last chapter, dealing with post-war finance and industry, is the best part of the book, but even here there is little that could repay the reader for the many tedious pages that precede it.

H. REYNARD

An Economic Chronicle of the Great War for Great Britain and Ireland, 1914–19. With a Supplement dealing briefly with the years 1920–22. By N. B. DEARLE. (Carnegie Endowment.) (H. Milford. Pp. 400.)

THE title of this book sufficiently explains its purpose, which has been accomplished with meticulous care, every event being entered on the day of occurrence. In addition, the record is checked at intervals with statements showing at certain dates the position as regards debt, employment, mint output, and output of commodities. It is an invaluable work of reference for the shelves of an economic library.

Principles of Company Law. By A. F. TOPHAM, K.C. Seventh edition. (Butterworth & Co. 1929. Pp. 420. 7s. 6d.)

Company Law. By A. CREW. Third edition. (Butterworth & Co. 1930. Pp. 374. 7s. 6d.)

THE last editions of these handbooks are of special importance in view of the numerous changes in every branch of company law which are made or consolidated in the Act of 1929. They are written by lawyers, and embody in their commentaries the interpretative decisions of the Courts; but both of them set forth, under clear divisions of formation, operation, accounting, and winding-up, an account of modern industrial structure in England which economists will welcome for its helpful exposition of the materials of their own work.

Tate's Modern Cambist. Centenary edition. By W. F. SPALDING. (London: Effingham Watson. Pp. 734. £2 2s.)

As the author points out, Tate could not have foreseen the international popularity of his book, for which in 1829 about a

hundred pages were sufficient. "But the story has grown in the telling, and the present edition has required some 700 pages for an adequate description of the monetary conditions of to-day—and still the multiplication of monetary units goes on—and still is the unification of the world's currencies a dream that has not come true." The number of monetary units quoted in this edition is sixty-six, and includes the baht, the cruzeiro, the lempira, the ryal, the tilla, and the yuan. But the diversity is greater than the number of quoted units, since for example, the peso may be of 1.556 grammes in Uruguay, 1.451 grammes in Paraguay, 1.464 grammes in Colombia, .183 gramme in Chile, and has a difference in the fifth decimal place as between the Argentine and Paraguay.

The account of the bullion and exchange markets has been brought up to date, in view of many alterations since the war; and among new features is an account of the American silver market. An Appendix gives an account of Tate's activities as a commercial teacher, and of the establishment of his "Cambist" after some competition with the similar work of one Kelly.

The author's acknowledgments to many colleagues will be gratefully extended to himself for the years of work which this edition has required.

The Economic Forces of the World. (Published (in English) by the Dresdner Bank, Berlin. Pp. 176: with numerous tables.)

THE articles and tables in this Report are produced, on the basis of reliable material from different sources, by the Economic Department of the Bank. The purpose is to show the recent history and present importance of those forces which, in the post-war period, "have caused substantial changes and tensions in world economy." Summary tables are given for the world, and by continents, for population, agriculture, sources of industrial energy, traffic, metallic raw materials, textiles, and chemicals; foreign trade, gold supplies, national income, and national wealth. The detailed tables for these factors are accompanied by textual commentaries on the recent changes in policy, technique, and tendency. The Section on National Incomes includes an account of the factors of interdependence in relation to real income. The commodity Sections are remarkable for both the completeness and compression of their information. This is the third issue, completing 81,000 copies.

Wörterbuch der Rechts- und Geschäftssprache, Englisch-Deutsches und Deutsch-Englisches. By DORA V. BESELER. (Berlin : de Gruyter and Co. Pp. 223.)

As a translator attached to the German Foreign Office, the authoress has collated corresponding terminology, and this is now expanded into an economic and legal dictionary. It is a most serviceable volume, meeting a need which ordinary dictionaries do not meet, and being based on an extensive use of leading periodical and other literature in both countries.

Dizionario commerciale : Italiano-Inglese e Inglese-Italiano. By PROF. N. SPINELLI. (Turin : Lattes & Co. 2 vols.)

THIS dictionary will be a valuable aid to students of Italian economics. It has an extensive terminology in subjects relating to economics, finance and statistics.

NOTES AND MEMORANDA

DR. CANNAN'S VIEWS ON UNEMPLOYMENT

To have provoked the publication of Dr. Cannan's views on unemployment is a service I do not regret, even if the result is to demonstrate that my own views are wrong. The demonstration does not, however, seem to me complete, and I will therefore restate my position briefly in the light of Dr. Cannan's criticisms.

1. Dr. Cannan makes an important distinction between short-term and long-term unemployment. I was not unaware of the distinction (cf. pp. 4-5 and 117-119 of my *Post-War Unemployment Problem*), but I did not regard it either as the chief difference between pre-war and post-war unemployment, or as due to the Unemployment Insurance scheme. Dr. Cannan's view is based on certain assumptions of fact—that an excess of short-term unemployment is “not confined to particularly depressed industries,” is “not observable in uninsured occupations” or countries without an insurance scheme, and that it is correlated in time with the coming into full force of unemployment insurance. Outside the period and the countries which have unemployment insurance schemes, many things are not easily “observable” which nevertheless occur. Before the war short-term unemployment was quite common, as the Poor Law Commission's investigations showed, and must have borne a high ratio to long-term; it was common in those industries—Building and Docks—in which it is most extensive now. There is a good deal of it in the “uninsured” occupation of Agriculture, and a great deal of it in the “uninsured” countries of America. I attribute it, as the Poor Law Commission and Sir William Beveridge did before the war, to vicious methods of engaging labour and defective organisation of the labour market rather than to the provision of relief.

2. I dismiss “far too airily the influence of insurance on the mind of the insured.” If I did so, it was because I could not see that it is possible to make openings for employment merely by seeking them. Dr. Cannan seems to me to dismiss far too airily the safeguards in the Insurance scheme against the grant of benefit when employment is available. My remark that “sooner or later” the unemployed workman is obliged to accept work outside his own district or trade was, as the context shows, merely a summary of the numerous and detailed rulings by which the umpire safeguards the insurance fund against claims

when work is available; it is "sooner" in the case of a single man without dependents, "later" in that of a married man with a skilled trade and a settled home; which is reasonable. Where the regulations may be delaying the expansion of employment is in requiring the standard rate of wages as a condition of treating an offer of employment as "suitable." It is true that the volume of unemployment would be reduced if the time-lag in the movement of labour to available jobs were reduced; but the way to secure that object is surely to improve the efficiency, by extending the use, of the Employment Exchange system. Merely harrying the unemployed more probably tends to increase the number of casual engagements, and so to extend short-term unemployment or chronic under-employment. The "waiting period" was, in fact, extended, and conditions otherwise made more stringent, in February and July 1925, without any discernible effect on the figures of unemployment.

3. Rationalisation "as a cure for unemployment" is "perfectly futile." I readily admit that, where demand is inelastic, the immediate result of reducing costs may be to reduce employment; but, on a dynamic view, an inelastic demand schedule may rise as a whole from one year to another. At any moment in the fifty years before the war the demand for coal or wheat was probably inelastic; yet demand increased throughout the period. The reasons for believing that such a reduction of costs as might be effected by reorganisation was needed in the interests of employment can be summarised quite shortly. The world demand for the products of all the depressed industries is growing with growth of world population and wealth; this increase will be satisfied from other sources if our costs are higher than theirs. Even if there is no growth in aggregate demand, it is not certain that our share of production might not be restored to something nearer its former proportion, as the shipbuilding and coal industries have demonstrated. Even if we have to import raw material and export the manufactured product, as in the case of the cotton industry, so has our chief rival Japan. It cannot be assumed that because a raw material is grown in a country it is necessarily cheaper to manufacture it in that country; it costs no more to bring cotton from Galveston to Lancashire than to take it to the chief cotton manufacturing areas of the United States. As Lord Salisbury said in another connection, it is advisable to use large-scale maps.

Even if lowering costs offered no prospect of increasing employment, it would still be necessary in the interests of main-

taining employment. As I pointed out (pp. 49-50), a good deal of employment is at present being given at a loss. Unless the loss can be stopped, this employment will no longer be given. On the other hand, if the loss can be stopped, the demand for labour, which the revenue of these industries provides, will be increased; for example, if the 200 cotton mills, which lost on an average £10,000 each in 1928, had been able to cover their costs and charges, they might have given rather less employment in the cotton industry, but they would have added £2,000,000 to the national income, instead of merely transferring £2,000,000 from their unfortunate proprietors to their creditors, or, where they went bankrupt, from their creditors to their employees. A reorganisation that reduces costs has the same ultimate effect on employment as any other labour-saving device; it increases wealth, and therefore increases the demand for labour. Has Dr. Cannan himself slipped into the "lump of labour" fallacy?

4. The chief criticism that Dr. Cannan brings, however, is that I ignore, or neglect, the "true remedy" of unemployment, "redistribution of labour force between the different occupations," and that this neglect is explained by my holding the "lump of labour fallacy." Actually the difference between us is very largely that my discussion was confined to the special conditions of the post-war problem, while Dr. Cannan is discussing unemployment in general. Before the war redistribution of labour kept unemployment within comparatively narrow limits; even after the war, until 1925, it was effective in reducing unemployment. Since 1925 it has not sufficed, and, in the twelve months since I wrote, unemployment, in spite of much redistribution and the assistance of the policy of transfer, has increased 40 per cent. My reference to the policy of transfer was a bare reference to fact; the policy had achieved little, and Dr. Cannan, with fifteen months additional experience to draw on, does not show that it can achieve more. If and where there is a demand for labour, the spontaneous mobility of labour, assisted by the ordinary functioning of the Employment Exchanges, can be relied on to meet it, as is shown by the immense transfers from the munitions industries and into Building since the Unemployment Insurance scheme was made national in extent. There appears to be little scope for a policy of transfer, over and above these existing agencies of redistribution.

If it is to be guilty of the "lump of labour fallacy" to disbelieve that the release of labour by a declining industry automatically ensures a compensating increase in the demand for labour in another industry, in the same country, and at the same

or higher rates of pay, I must plead guilty. As Dr. Cannan guesses, I do not regard the people of Great Britain and Northern Ireland as a self-contained and self-supporting community (his own argument seems to imply that they are), and I regard it as quite possible, therefore, for an expanding world demand for commodities to be satisfied from other sources without relieving unemployment in this country at all. That will happen if our costs are higher than those of competing countries, which also have unemployed workers and idle capacity that they wish to employ. We could still employ our population in meeting our own needs, as Dr. Cannan argues; but is it certain that we can do it "without reducing the advantages [of the employment] much below that of other occupations," or that "trades for domestic consumption" could "provide as good a living" for the workers at present dependent on the export trades if we once lost these export trades? I discounted the growth of certain expanding employments because it was due, at least in part, to protection and subsidies. Dr. Cannan assumes, what I wish to see proved, that our comparative advantages for the manufacture of motors, and for the unspecified occupation in which the daughter of a Welsh miner is making good in Oxford under his eyes, are greater than our comparative advantages for steel, cotton or fine dress goods. If not, if their expansion is explained by subsidies and protection, they do not afford proof of the possibility of relieving unemployment by mere redistribution.

It is assumed, not only that occupations could be found for the present unemployed by redistributing them, but that these new occupations will give them employment at the same or higher rates of wages. No one would dispute the possibility of finding work for the unemployed at *some* rate of wages; surely it is not "the lump of labour fallacy" to hold that it would not be possible at *any* rate of wages. If the unemployed would work for a pound a week, there are many new industries that would spring up to absorb them; but in that case there would be no need to redistribute them, because the existing industries could reabsorb them. In a previous essay on this subject (ECONOMIC JOURNAL, March 1928) I argued for the view that by a redistribution of labour such an increase in production might be secured, that the whole of the working population might be employed at something like present average wages. Theoretically I can still see the possibility of this; but practically, after two more years of abnormal unemployment, I see no likelihood of its being achieved, whether by spontaneous movement of labour or by a policy of Government transfer.

Either, therefore, a reduction in wages, at least to the real level of 1924, or an increase in the productivity of industry by the application of more capital, technical improvement, or reorganisation, is necessary, or we must expect unemployment to continue. And this whether we abolish unemployment relief or not.

I do not, therefore, hold the fallacy that the demand for labour is fixed and limited, and I quite readily admit that by an appropriate redistribution of labour, which the abolition of the Unemployment Insurance system might assist, all the unemployed might be employed. The important question is, on what terms could they be employed. It is unlikely that they would all be employed on terms as good on an average as those enjoyed by the workpeople at present in employment. The possible terms depend on the distribution of industrial skill, the amount and form of capital available, the existing organisation and market connections of British industry, none of which can be changed suddenly. No doubt by the year 2000, or even 1950, industry will have adjusted itself to the changes brought about by the war and the return to the Gold Standard; but the people engaged in industry to-day, unlike economists, are not able to look at economic problems *sub specie aternitatis*.

In fact the remedial influence of redistribution of labour has not kept pace with the influences tending to increase unemployment. The important practical question, therefore, that Dr. Cannan brings out is, what is holding up and delaying redistribution? Unemployment relief may be an influence; but it cannot be the chief influence, because industry is organised, and openings for employment created, not by the wage-earner, but by capitalist enterprise. Three influences seem to be checking this enterprise. One is the level of wage-rates, which have been maintained at approximately the 1924 level, while the price, which the employer gets for his products, as shown by the average price of exports, has fallen 18 per cent. A second is the general fall in prices. The third is the heavy direct taxation of profits, out of which expansion and new enterprise are financed. The growth of industry before the war, which carried with it the redistribution of labour, was effected mainly by successful firms expanding out of profits; and the increased rate of taxation of profits is one of the most obvious and largest economic changes that distinguish the post-war from the pre-war period. It is difficult to see how new openings, at equal or higher rates of pay, can be created for displaced labour as rapidly as they were created before the war.

HENRY CLAY

OBITUARY

THE EARL OF BALFOUR

By the death of the Earl of Balfour, in the ripeness of his years, the Royal Economic Society has lost the last of the distinguished statesmen who were its original Vice-Presidents at the date of our foundation forty years ago, though, happily, no less than six of our original members of Council are still serving the Society.

Arthur James Balfour was probably better equipped than any man, who has been Prime Minister of Great Britain in modern times, to hold high office in our body. He first came to the subject in his undergraduate days in Cambridge as the pupil and friend of his brother-in-law, Henry Sidgwick. His first speech in the House of Commons was on the subject of Bimetallism. His *Economic Notes on Insular Free Trade* was certainly the most "academic" memorandum which a Prime Minister has ever circulated to his Cabinet.

His attitude to the two great economic controversies of the last generation, in both of which he played a part of first-rate importance—the Bimetallic Controversy and the Tariff Reform Controversy—well illustrated his most marked intellectual characteristic, the remarkable open-mindedness with which he combined a cautious and balanced conservatism. Except for those who are too "enthusiastic," too hasty to translate ideas into action, there was nothing in the intellectual world of England more charming and beautiful to behold than this supremely well-informed, brilliantly dialectical, open-minded conservative, perfectly poised between the past and the future.

His boldest flight of policy naturally came earliest. "Mr. Balfour's speech at Manchester on October 27, 1892," the *ECONOMIC JOURNAL* recorded at the time,¹ "marks an epoch in the history of English monetary discussion." His repudiation of the gold standard in the form in which it was functioning in the early 'nineties was unqualified. "The instrument of exchange," he said (meaning gold monometallism), "which you actually have is a bad instrument, and I offer you for your acceptance an instrument which, if not perfect, is at all events practicable, and

¹ Vol. II., p. 105. The speech in question was reprinted in *British Industries and International Bimetallism*.

is incomparably better than any which you are likely to obtain by any other means of which I have any knowledge." One does not easily find an equal boldness to-day from any statesman who has led his party in Parliament---as Balfour already had in 1892.

Some years later he was again unafraid to be an economic heretic---whilst perfectly aware of the opposing arguments---along lines of his own which were not palatable to either of the contending factions. The *Economic Notes on Insular Free Trade* is one of the most remarkable scientific deliverances ever made by a Prime Minister in office. It wears well and bears re-reading. I think that economists to-day would treat Balfour's doubts, hesitations, vague sensing of troubles to come, polite wonder whether unqualified *laissez-faire* is quite certainly always for the best, with more respect, even if not with more sympathy, than they did then. Mr. L. L. Price, reviewing the pamphlet in the *ECONOMIC JOURNAL* (Vol. XIII. p. 567), recorded that "one impetuous critic (Mr. A. C. Pigou in a letter to *The Times*) asserted on the morrow of the publication of the pamphlet that Mr. Balfour had done no more than state propositions with which most modern economists would agree, when expressed in this abstract form, and that on some points they would be ready to go farther than he had done; but, he added, no attempt had been made by the Prime Minister to bring these undisputed, or indisputable, hypothetical reasonings into the relation with the actual facts of the present circumstances of England which was needed to justify a practical policy, and such an attempt was doomed to fail."

This is not quite one's feeling on re-reading the pamphlet to-day. One can still note the sophistry of the delicate transitions from the demonstration that a doctrine is not certainly false to the half-suggested implication that it is, therefore, probably true. But when it comes to the facts of Great Britain's situation, as viewed in the light of after-events, one must feel a respect for the prescience and sensitiveness of the author. In the Marshall library at Cambridge there is to be found Alfred Marshall's copy of the *Economic Notes* with his many comments pencilled in the margin. Here again one feels---beginning with Balfour's sentence, "we must now accept the fact that the most advanced of our commercial rivals are not only protectionist now, but in varying measure are going to remain so," and Marshall's comment, "not certain"---that the statesman's prevision of the subsequent course of commercial and industrial policy has proved the more correct.

We have lost in Arthur James Balfour one of the greatest ornaments of his age, a steady friend in high places of science and art and sound learning, a lover of Universities and what they stand for, one who was sensitive and exquisite in every occasion of courtesy or taste.

J. M. KEYNES

CURRENT TOPICS

WE announce with much regret the death of Dr. Arthur Twining Hadley, President Emeritus of Yale, at the age of seventy-three. Dr. Hadley was an original member of the Royal Economic Society. We hope to publish some account of him by Professor Irving Fisher in the next issue of the JOURNAL.

THIS issue of the JOURNAL has to go to press before the date of the Annual Meeting of the Society called for May 28. Our President, Professor H. S. Foxwell, was to have delivered his Presidential Address on this occasion, but owing to illness it has been necessary that this Address should be postponed. It was proposed, therefore, to hold a discussion on "Some Problems of Rationalisation," with Professor A. C. Pigou in the Chair. Two new Vice-Presidents are nominated for election on this occasion, namely, Lord Passfield and Dr. Bonar, both of them being original members of the Society and with long service on the Council.

THE net gain of new Fellows and Library Members, after deducting those lost by death, resignation or default, is, for the third year in succession, in the neighbourhood of 300. The total number of Fellows and Library Members on December 31, 1929, was 3,465. The Revenue Account of the Society shows a satisfactory surplus. A copy of the balance sheet and other particulars have been posted to all members of the Society.

WE are asked to announce that an International Conference of Agricultural Economics and Farm Management, in continuation of the Conference held last year at Totnes, Devon, will be held at Cornell University, Ithaca, New York, from August 8 to August 29. The programmes for the Conference are now available and may be obtained from Professor Leland Spencer, Department of Agricultural Economics, Cornell University, Ithaca, New York.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

- PART I. 1930. *The Present Position of the British Coal Trade.* J. H. JONES. *Money and Index-numbers.* R. G. HAWTREY (with discussion).

Economica.

- MARCH, 1930. *Is America Prosperous?* T. E. GREGORY. *The Present Position of Economic Science.* L. ROBBINS. *The Early History of Industrial Conciliation in England.* J. R. HICKS.

Sociological Journal.

- JANUARY, 1930. *European Democracy and the New Economic Forces.* C. DANSON. *Surveys and Country Life.* A. FARQUHARSON.

International Labour Review.

- FEBRUARY, 1930. *Working Conditions in a Rationalised Industry: the Bata System and its Social Consequences. The Crisis in the Australian Coal Industry.* F. R. E. MAULDON. *The International Organisation of Migration.* C. TAIT. *Annual Holidays with Pay for Miners.*
- MARCH, 1930. *Injunctions in Labour Disputes in the U.S.A.* E. E. WITTE. *Employers' Additional Unemployment Benefit Schemes in Great Britain.* M. B. GIBSON and E. J. RICHES. *The Family Allowance System: a Survey of Recent Developments.*
- APRIL, 1930. *The Preparatory Technical Conference on Conditions of Employment in Coal Mines.* F. MAURETTE. *Industrial Relations in the London Traffic Combine.* G. A. JOHNSTON and T. G. SPATES. *Employment and Unemployment in some Great European Ports.* M. GOTTSCHALK.

The Political Quarterly.

- JANUARY, 1930. This first issue contains *The Problem of the Coal Mines*, by G. D. H. COLE; *The Question of High Wages*, by J. M. KEYNES; *How far can a Labour Budget go?* by J. WEDGWOOD.
- APRIL, 1930. *Empire Free Trade.* T. E. GREGORY.

Quarterly Journal of Economics.

- FEBRUARY, 1930. *The Tariff 1929-30.* F. W. TAUSSIG. *Economics and the Idea of "jus naturale."* O. H. TAYLOR. *The Measurement of the Physical Volume of Production.* A. F. BURNS. *Control of Investment versus Control of Return in the Regulation of Natural Monopolies.* B. W. KNIGHT. *Business Fluctuations and Public Works.* G. BIELSCHOWSKY. *Statistical Light on Profit as analysed in Recent Literature.* R. C. EPSTEIN. *Industrial Combination as surveyed in Recent Literature.* P. T. HOMAN.

Harvard Journal of Economic and Business History.

- FEBRUARY, 1930. *Materials for an Economic History of the Ancient Near East.* A. T. OLMSTEAD. *The European Financial Crisis of 1559.* H. HAUSER. *The Massachusetts Bank, 1784-1865.* M. H. FOULDS. *History of the Bank of Italy in California.* G. W. DOWRIE. *The French Railroads, 1823-42.* G. LEFRANC. *Business Leaders in Cologne in the Nineteenth Century.* M. L. HARTSOUGH. *Trend of the Southern Iron Industry under the Plantation System.* L. J. CAPPON.

Journal of Political Economy.

- FEBRUARY, 1930. *A Measurement of British Industrial Production.* N. A. TULLES and P. H. DOUGLAS. *Inter-allied Debts, Reparations, and National Policy.* H. L. LUTZ. *The General Property Tax and the Farmer.* M. NEWCOMER. *The Rise of the American Cottonseed-oil Industry.* H. C. NIXON.

American Economic Review.

- MARCH, 1930. *Velocities, Turnovers, and Prices.* H. J. DAVENPORT. *New Estimates of National Incomes.* H. E. FISK. *Classifications of Public Expenditures.* H. W. GUEST and M. H. HUNTER. *Corporations and the Public Investor.* A. A. BERLE and G. C. MEANS. *Rent under Increasing Returns.* F. A. FETTER and A. B. WOLFE. *Land and Capital* (a note). E. CANNAN.
- DECEMBER, 1929. *Papers and Proceedings of the Annual Meeting of the American Economic Association.* This includes papers on *Public Works and Unemployment*; *Reparations and the Flow of Capital*, and the *Mechanisation of Industry*.

Annals of the American Academy of Political and Social Science.

- MARCH, 1930. *Real Estate Problems.* This study is mainly of interest to the general reader through its articles on the problems of land valuation and taxation.

Wheat Studies (Stanford, California).

- FEBRUARY, 1930. *The Contractility of Wheat Acreage in the United States.* Will the Federal Farm Board be able to restrict the acreage planted to wheat?
- MARCH, 1930. *The Danube Basin as a Producer and Exporter of Wheat.* The Danube Basin has lost its importance on the world wheat market since the war, its annual exports falling from 110 million bushels in 1909-13 to 36 million bushels in 1923-27, due to a lower yield per acre. The decline is mainly attributed to agrarian reform in Roumania.

Revue d'Economie Politique.

- JANUARY-FEBRUARY, 1930. *Situation et avenir de l'agriculture française.* M. M. AUGÉ-LARIBÉ, P. CAZIOT, P. HALLE, H. ROUY. *La réforme de l'étalon de change-or.* F. MLYNARSKI. *Le crédit par acceptation à Londres.* H. POUYANNE. *L'œuvre scientifique de quelques économistes étrangers.* M. BYÉ. *Quelques aspects économiques de la conquête espagnole de l'Amérique.* L. BAUDIN.

Journal des Economistes.

- JANUARY, 1930. *Du risque en matière de banque* P. CAUBOU. *La réforme monétaire en Tchécoslovaquie.* L. J. DVORAK.
- FEBRUARY, 1930. *La réglementation du vote plural dans les sociétés par actions.* A. POTTIER. *La solidarité des banques dans la distribution du crédit.* L. ALIBERT. *Les résultats de la guerre mondiale.* R. J. PIERRE. *Terminologie économique.* R. SÉDILLOT.
- MARCH, 1930. *Le travail de la femme et la natalité.* L. G. NUMILE. *Les Cartels en Pologne.* C. DE K.

Metron.

- FEBRUARY, 1930. *La demande dans ses rapports avec la répartition des revenus.* R. ROY. An important analytical reconsideration of some aspects of the demand curve.

Revue de l'Institut de Sociologie.

- OCTOBER-DECEMBER, 1929. *L'investigation scientifique et ses caractères propres dans les domaines sociaux.* G. HOSTELET. *La sociologie et les sciences sociales.* W. M. KOZLOWSKI.

Schmollers Jahrbuch.

- DECEMBER, 1929. *Zur neuesten Entwicklungslehre vom Einkommen und Ertrag.* K. DIEHL. *Bemerkungen zur Frühgeschichte der allgemeinen Steuerlehre.* F. KARL MANN. Except for some few monographs, such as those of Seligman and Ricca-Salernos, there is no work extant dealing with the general history of taxation. Prof. Mann, therefore, seeks to deal with certain general preliminaries, which, however, only relate to the seventeenth and eighteenth centuries. These, moreover, are only concerned with the growth of taxation postulates. It is shown that the concept of general taxation first appeared in the middle of the seventeenth century, but general taxation policy was not resorted to until fifty years afterwards. There is a good classification of taxation theory in the twenty years prior to Adam Smith. *Soziographie.* R. HEBERLE.

Zeitschrift für Nationalökonomie.

- 1 Band, 4 Heft. JANUARY, 1930. *The "deposit" myth in the Theory of Banking.* A critical discussion of the views of Withers, Lawrence and others on one side, and of Cannan and Leaf on the other. *The Level of Marginal Utilities and Liefmann's "Law of the Equalisation of the Consumers' Marginal Returns."* W. KROMPHARDT. An examination of Liefmann's views in relation to those of the Austrians. *Transfer and Price Movements.* G. HABERLER. Starting from a recent discussion in the *ECONOMIC JOURNAL*, the conclusion is reached that it is wrong to assert that the barter terms of trade must move against a remitting country. This discussion is continued on another ground by F. MACHLUP. *The Wheat-trading Monopoly in Switzerland, 1914-28.* J. LANDMANN. *Psychological Economies in France.* M. ROCHE-AGUSSOL. *The Theory of Population and the Austrian Population Census of 1930.* W. WINKLER. (All these articles are in German.)

Zeitschrift für die gesamte Staatswissenschaft.

- 88 Band, 2 Heft. MARCH, 1930. *Geldwirtschaft, Kapitalismus, und Landwirtschaft*. H. SEÉ. A general historical survey of the influence of Capitalism on agriculture. *Erkenntnistheoretische Kritik der Grundlehren Liefmanns*. K. ENGLIS. A defence of the teleological conception of Englis against the psychological conception of Liefmann. *Steuerbiologie und Statistik*. F. MEISEL. An analysis of the recent tax statistics of Zurich. *Pellegrino Rossi*. G. BOURGIN.

Jahrbücher für Nationalökonomie und Statistik.

- FEBRUARY, 1930. *Zur Theorie der Wirtschaftswissenschaften*. E. CARELL. *Eine synthetische politische Oekonomie*. O. WEINBERGER. *Der wirtschaftliche Zusammenschluss in Mitteleuropa*. E. HANTOS.
- MARCH, 1930. *Methodik und Erkenntnisobject einer Theorie der Volkswirtschaftlichen Dynamik*. E. H. VOGEL.

Weltwirtschaftliches Archiv.

- APRIL, 1930. *Konstanz und Variabilität ökonomischer Grössenbeziehungen*. F. SCHAMS. *Statistik und Teuerung*. P. HERMBERG. *Die internationalen Goldbewegungen*. A. BOER. *Entwicklungslinien der landwirtschaftlichen Weltproduktion*. G. A. STUDENSKY. *The Quantitative Study of Recent Economic Changes in the United States*. A. R. BURNS. *Economic Research Work*. A. G. H. DENT. *Der polnische Hafen Gdingen als Wettbewerbsfaktor in der Ostseeschifffahrt*. H. STEINERT. *Landwirtschaftliche Wanderarbeiter in den V. S. von Amerika*. R. HEBERLE.

Vierteljahrshefte für Konjunkturforschung.

- Sonderheft 17. *Die Dynamik des Baumarkts*. K. HUNSCHA.

Europa-Wirtschaft.

- No. 1. This is the first issue of a new periodical. *Zollfried*. W. GROTKOPP. *Der Haag- und dann?* E. STERN-RUBARTH. *Europa an der Schwelle zweier Geschichtsphasen*. W. WOYTINSKY. *Konjunktur- und Zollpolitik und Massenwohlstand*. M. ELSAS. *Der Völkerbund und das Kohlenproblem*. R. H. HAUPT.

Giornale degli Economisti.

- DECEMBER, 1929. *Le teorie economiche di Rodolfo Benini*. G. DEL VECCHIO. *Profili teorici delle prognosi economiche*. G. PIETRA. A plea for the further study of the technique of the construction of economic barometers, the potential value of which is emphasised. *Per un dizionario di semiologia economica: i matrimoni*. DR. TAGLIACARNE, referring to a suggestion put forward by Professor Benini in 1891, advocates the preparation of a "dictionary of economic semiology"—i.e. statistical tables and charts, illustrating the historical movements of economic phenomena with a view to ascertaining inductively the existence of casual relationships. As a contribution thereto he provides a series of charts showing the numbers of marriages, output of agricultural produce, and foreign commerce for Italy from 1870 to 1928. *Alcuni effetti*

economici dei prestiti esteri in Germania. C. BRESCIANI-TURRONI. A long and important article, containing a great deal of statistical information, with reference to the economic effects of foreign loans on Germany. The economic history of Germany from 1924-29 affords ample scope for a study of the influence of foreign borrowing, not only because of the relative magnitude of such loans, but also because of the great fluctuations in their volume. The author estimates that, out of the net total of £800 million borrowed abroad by Germany (allowing for German exports of capital), £449 million were imported in the form of goods and services; £135 million were transferred abroad in payment of reparations; £77 million served to pay interest; and £120 million were converted into gold or foreign Devisen. *I principali scritti di Rodolfo Benini.* R. BACHI.

JANUARY, 1930. *La curva statica di offerto.* PROFESSOR AMOROSO contributes to the mathematical theory of supply curves under static assumptions. He discusses the shape of the cost curve; the relation between price and marginal costs under modern conditions of large-scale enterprise; the problem of multiple monopoly; and the supply curve on the assumption of competition. "For each single firm the percentage deviation between price and the marginal cost is directly proportional to the quotient between the quantity produced by the firm and the total production; and inversely proportional to the elasticity of demand." He defends, against the criticisms of Bertrand, Edgeworth and Pareto, the doctrine of Cournot, that there must be a position of stable equilibrium under conditions of bilateral monopoly. *Della identità dei concetti astratti di monopolio e di concorrenza di venditori agli effetti della determinazione del prezzo e della quantità offerta.* A. CROSARA. *Appunti sulla rendita del consumatore.* A. GRAZIANI. *Un progetto di riduzione delle spese militari in Sardegna nel 1812.* A. BERNARDINO. *La legge del Mitscherlich e la sua applicazione nell' economia della fertilizzazione del suolo.* G. MEDICI.

La Riforma Sociale.

JANUARY-FEBRUARY, 1930. *Di un particolare aspetto delle imposte sul consumo.* Dr. M. FASIANI discusses the conditions under which a tax, yielding a given amount of revenue, levied on a single individual, will produce equal or greater or less sacrifice if imposed on his income, or, alternatively, on his expenditure. *La gestione delle ferrovie dello stato nel sessennio, 1923-24-1928-29.* F. A. REPACI. A detailed analysis, with much statistical material, of the operation of the Italian railways between 1923 and 1929. *Il controllo della moneta per mantener fermi i cambi ed i prezzi.* V. PORRI.

De Economist (Haarlem).

NOVEMBER, 1929. *De veranderlijkheid van prijzen.* IR. L. HAMBURGER. A summary of the main points in two articles published elsewhere by the author, with references to two prospective publications. The main idea is that the apparently unregulated picture of market prices behaves like a powerful interconnected elastic system, like a living organism characterised by its capacity to repair the consequences of serious catastrophes. There is need of a dynamic point of view which consciously endeavours to view

things not merely in their existence but in their operation. In the discussion it is emphasised that, so far as concerns the marginal producer, experience shows that at any moment a considerable number of enterprises are run at a loss. In a summary of the second article the relation of prices in different countries is discussed. The links which connect the price levels in two countries, or keep them within certain limits, appear to be in high degree calculable. In place of the conception of a law of purchasing power parity (going back to Ricardo) there emerges a law of purchasing power disparity, of which the former law appears to be merely a special case. The position is that there is a constant striving towards a position of purchasing power parity, but there are perpetually influences which urge away from this balance. There are thus two limits, purchasing power parity and the marginal disparity of purchasing power. The author's theories (which probably require a fuller statement for their complete comprehension) are illustrated and objections considered. *Overschrijding van de grenzen van het arbeidsrecht*. A. N. MOLENAAR. The law relating to workmen is concerned with the legal relations of those who must provide for themselves and their families by rendering services in return for wages. It is concerned with the relations in industrial life of people who are not independent. This dependence coincides in many cases with a certain weakness economically. The object of the law is therefore to give a certain protection and support, and it need not go further than is called for by the actual existence of a weak industrial position on the side of the workers. It is suggested that there is a tendency to go beyond this, and to lay down conditions which are not justifiable on the basis which protective legislation postulates. Among the examples cited are the provisions with regard to night-work in bakeries where the employer and his wife alone are concerned, and the question of closing hours for shops where no employees are affected. Protective legislation should not extend to the independent worker.

- JANUARY, 1930. *Een nieuwe weg voor conjunctuur-onderzoek, een nieuwe richtlijn voor conjunctuur-politiek*. IR. L. HAMBURGER. A mathematical discussion of the trade cycle, applying ideas derived from physical science. "The business cycle is commonly considered to be in principle an harmonic wave motion about a moving equilibrium. This is not so. The chronic recurrence of economic recessions should be interpreted as essentially a composite relaxation phenomenon." (A condensed summary of the article is given in English.) *De October-crisis*. H. A. VAN NIEROP. A review of the circumstances leading up to the American financial crisis of last year. The author's view is that the latest crisis has taught us nothing. *De vaststelling der pacht van overheidswege*. J. SMID. A discussion of legislation pending on the subject of tenants' rights. The four points under discussion among those who advocate a new law are :—(i) compensation for tenants' improvements; (ii) right to a reduction of rent in the event of failure of harvests; (iii) right to renew lease on expiry; and (iv) authoritative determination of rent. The article is devoted to the fourth point, and the writer deals with the difficulties which arise from the practical, the social, the economic and the political point of view.
- FEBRUARY, 1930. *De ontwikkeling der gemeentefinanciën in de naaste toekomst*. A. VAN DOORNINCK. A discussion of the disquieting

increase of local indebtedness compared with the increase of the national income. An analysis of the most recent figures available shows an increase in local indebtedness of 25 per cent. during three years, while the corresponding increase in the national income is 4.5 per cent. This increase, moreover, is greatest in the largest authorities. There is consequently a constantly increasing burden on the national revenue. The causes of this expansion are:— (i) the impulse to expansion as a legacy of the war; (ii) an erroneous view regarding the productivity of municipal and local enterprise, and (iii) certain defects in Dutch administration. The article is devoted chiefly to the second and third points, and reference is made to views expressed at a recent conference at Breda with regard to the financing of public baths, playing-grounds, etc. The question of borrowing in such cases is discussed, and also (under iii) the problem of control. *De suiker-industrie en de inlandsche landbouw op Java*. J. C. KIELSTRA. A discussion of the influence of the sugar industry in Java. *Het bouwbedrijf, de interest en de effectenbeurs*. W. L. FALK. The index yielded by the building industry is not so popular as formerly. How far is prosperity in the building industry connected with other factors of prosperity? Consideration is given to the demand for building in industry, for dwelling-houses and for municipal purposes. American calculations are referred to, based on size of population and growth of population; there are, however, other factors (as, e.g., legislation with regard to immigration). There is also the price factor; in particular, (i) the cost of building; (ii) the fact that a high cost compels greater borrowing, and (iii) the price of money. There is a strong connection between the building industry, the cost of building, the rate of interest and the growth of industry and speculation. American data are discussed in detail. The conclusion is that the index of the building industry does not permit a more reliable forecast than an index based on other industries; but it is among the most interesting indices. Fluctuations in the building industry are influenced by peculiar considerations.

MARCH, 1930. *Een indexcijfer op grondslag der subjectieve waarde-theorie*. R. VAN GENECHTEN. A theoretical discussion of what is involved in "stability" of money, referring largely to the controversy between Ross and Merriam in the *Annals of the American Academy* of 1894, on the question of a standard of deferred payments. The value of money is determined by the marginal exchange of a unit of money; if the value of money is to be fixed, this signifies that the marginal exchange of the gulden is to remain the same. Suggestions for improvement in theory of the customary index-numbers. *Een paar losse opmerkingen over den tuinbouw in Nederland*. J. J. VAN RIEMSDIJK. Observations on the position of horticulture in Holland.

Scientia.

DECEMBER, 1929. *Le ripercussioni psicologiche della organizzazione scientifica del lavoro*. A. LORIA.

Skandinaviska Kreditaktiebolaget.

APRIL, 1930. *The Gold Standard in 1929*. G. CASSEL.

Kyoto University Economic Review.

- DECEMBER, 1929. *The Physician, and taxing his Business.* M. KAMBE. *A Power Theory of Wages.* Y. TAKATA. *The New Economic Policy in the Closing Days of the Tokugawa Shogunate.* E. HONJO. *On the Revision of the Land Tax.* S. SHIOMI.

NEW BOOKS

British.

- BARNES (D. G.). *A History of the English Corn Laws from 1660-1846.* Routledge. 9½". Pp. 336. 15s.
- BRUNNER (C. T.). *The Problem of Oil.* Ernest Benn. 8½". Pp. 231. 15s.
- CONDLIFFE (J. B.). *New Zealand in the Making: a survey of economic and social development.* Allen and Unwin. 8½". Pp. 524. 15s.
- COYAJEE (SIR J. C.). *The Ratio Controversy in India: a retrospect.* Calcutta: The Book Co. 7". Pp. 100.
- CREW (A.). *Company Law.* Third (revised) edition. Butterworth. 8½". Pp. xxvi + 374 + 39. 7s. 6d.
- DRAGE (G.). *Public Assistance.* John Murray. 8½". Pp. 396. 15s.
- Eugenics Society. *Family Council Law in Europe.* Eugenics Society. 9½". pp. 91. 3s. 6d.
- GANDHI (M. P.). *The Indian Cotton Textile Industry; its Past, Present and Future.* Calcutta: The Book Co. 9½". Pp. 127. 6s.
- GRANT (I. F.). *The Social and Economic Development of Scotland before 1603.* Edinburgh: Oliver and Boyd. 8½". Pp. 594. 21s.
- HADFIELD (SIR R.). *Organised Empire Development.* London General Press. 8½". Pp. 36. 1s.
- HAWTREY (R. G.). *Economic Aspects of Sovereignty.* Longmans, Green. 8½". Pp. 162. 9s.
- HECHT (J. S.). *Unsolved Problems: National and International.* Jarrolds. 9". Pp. 288. 16s.
- HEDGES (R. Y.) and WINTERBOTTOM (A.). *The Legal History of Trade Unionism.* Longmans, Green. 8½". Pp. 170. 7s. 6d.
- HILEY (W. E.). *The Economics of Forestry.* Oxford, Clarendon Press. 9½". Pp. 256. 21s.
- HORACE PLUNKETT FOUNDATION. *Year Book of Agricultural Co-operation, 1930.* Routledge. 8½". Pp. 576. 10s. 6d.
- JUNIUS JUNIOR. *The Next Budget: the Chancellor's speech, a forecast.* Cecil Palmer. 7¼". Pp. 101. 2s. 6d.
- KNOWLES (L. C. A.). *The Economic Development of the British Overseas Empire. Vol. II. Comparative view of Dominion problems. Canada.* Routledge. 8½". Pp. 616. 12s. 6d.

KOCK (M. H. DE). *The Functions and Operations of Central Banks*, with special reference to the South African Reserve Bank.

LONGFIELD (A. K.). *Anglo-Irish Trade in the Sixteenth Century*. Routledge. 9½". Pp. 241. 12s. 6d.

MADGEARU (V.). *Rumania's New Economic Policy*. P. S. King. 8½". Pp. 63. 5s.

McGill University Economic Studies. No. 7, *The Pulp and Paper Industry in Canada* (with special reference to the export of pulpwood); by N. REICH. Toronto, Macmillan. 8¾". Pp. 77. 75 c.

No. 9, *Assisted Emigration and Land Settlement* (with special reference to Western Canada), by J. T. CULLITON. Montreal: The Federated Press. 8¾". Pp. 79.

MELCHETT (RT. HON. LORD). *Imperial Economic Unity*. Harrap & Co. 7¼". Pp. 195. 2s. 6d.

MITRANY (D.). *The Land and the Peasant in Rumania: the War and agrarian reform (1917-21)*. Humphrey Milford. 9¾". Pp. xxxiv + 627. 20s.

PINCHBECK (I.). *Women Workers and the Industrial Revolution, 1750-1850*. Routledge. 9¼". Pp. 342. 15s.

ROWLAND (SIR J.). *Should Labour co-operate with Capital?* London General Press. 8½". Pp. 19. 1s.

SAHA (K. B.). *Economics of Rural Bengal*. Calcutta: Chucker-vertty, Chatterjee & Co. 8½". Pp. 296. Rs. 8.

SPANN (O.). *Types of Economic Theory*. Translated from the 19th German edition by E. and C. PAUL. Allen and Unwin. 8½". Pp. 329. 10s. 6d.

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THE ECONOMIC JOURNAL

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PROBLEMS OF RATIONALISATION

At the Annual Meeting of the Royal Economic Society, held on Wednesday, 28th May, 1930, at 5 p.m., at the London School of Economics, with Professor A. C. Pigou in the Chair, a discussion was held on the above topic, of which the following is a slightly curtailed report.

THE CHAIRMAN: I will call on Professor Macgregor to open a discussion on "The Problems of Rationalisation."

PROFESSOR MACGREGOR: I imagine that the kind of duty which an opener of a discussion of this kind has, is to suggest certain lines for consideration, and that is what I wish to do. I would like to put some points of view which the representative of the Cotton Trade who is going to follow me may dwell on with the internal experience of someone who is rationalising.

Now the first consideration that strikes one is, if you read the literature on this subject, technical and popular, that "rationalisation" is another case of the old game of first finding a word and then finding what it means; because the popular as well as the technical range of writing on this question varies between the definition given by some people that it is the latest word for monopoly, and the idea of certain other more popular writers that only in the last year or two has it been discovered that there is such a thing as a cartel. The range is very wide, but there are two general ways in which the word is used. There is technical rationalisation, and what I would like to call "economic" or "industrial" rationalisation. The former, technical rationalisation, is a question of improvements carried out within businesses by the managers, methods like scientific management, the rapidity with which machinery is scrapped, the supervision of labour, by the stop-watch method or any other method, and generally what we economists have been in the habit of calling "internal economies." "Rationalisation" means in that respect a development of the range of internal

economies. Well, I do not propose to talk about that. It appears to me that business men themselves have the last word to say on a question like that. Whether a particular business, whether a particular industry, should scrap its machinery quicker, or should introduce a stop-watch method for the supervision of labour, or how fast it should introduce new machinery, are questions for themselves. I do not know anything about it. I do not think that anybody outside business does. At any rate, the authority on that subject rests with business men, and economic thought consists very largely in recording the progress of business practice in that matter, and in offering its own consideration on the relative progress of one country, or one industry, as compared with another.

But when you come to economic rationalisation the authority of business leaders does not seem to be so unique, because, when we are talking about that, what is in question is not the efficiency with which they manage their own businesses, but the readiness with which they co-operate with each other, or the amount of foresight with which they arrange the disposition of competing producers in relation to each other. Now that is a broader question; that is not a technical question; and the person who is outside industrial management may have more to say about that, because it attaches itself to broader ideas of efficiency, on which the outsider using comparisons of various kinds can speak with some authority; so I am speaking to-day of industrial rationalisation, and that is mainly a question of the right arrangement of the relations of producers to each other. You might have high technical efficiency and yet considerable retrogression in this matter of the arrangement of the whole industry; indeed, it has been held that that is so.

I imagine that this question of the right relations of producers to each other for the purpose of the development of the industry as a whole involves such aspects as these:—How far within an industry as a whole specialisation of function can be arranged; how far within an industry as a whole capacity can be made elastic to phases of production; that is to say, how far, in that phase of production which we have now, when supply has gone beyond demand in many industries, capacity can, by a good arrangement, be adjusted most economically to the phase, without, remember, losing the capacity in case the phase changes. It has been the great merit of some schemes abroad that they have provided this elasticity in the capacity of an industry, enabling it to suspend operations in certain plants, to carry them

for a while on the industry as a whole, to do that in the least wasteful manner—because, of course, change of phase is wasteful—and to have their reserve in case the phase changes. That is another aspect of it. Again, it does have, I think, this aspect—or may have this aspect—the control over the extension of capacity, the admission of new capacity, the degree to which the right development of an industry implies a control over the admission of new producers entirely. All these things, at any rate, are involved in rationalisation as it is understood in the country of its origin—Germany. It is working more and more towards high concentration of control for these three purposes—for the specialisation of function, for the adjustment of capacity to the phase of the industry, and for a control over the entry of new investment into the industry.

To come nearer to the conditions of this country. “Rationalisation” is a word which was not heard of until a very severe depression hit industry, and we have to be quite sure in speaking about it that it is not a panic word, and that under the influence of that word we shall not do something which, when the phase changes, we shall wish we had not done in that way. The time will come when this country is interested, not in the restriction of output, but in its extension. It will not be a good thing when that time comes if the control of fundamental output has been put in the hands of great combines without proper safeguards, and one must be sure that the word “rationalisation” means something now which we will be ready to stand by when the phase changes, otherwise we will be faced with a new phase, or a recurrence of the phase of 1920, when we wanted extension, and when, perhaps, if unwise things are done now, we shall be calling the present rationalisers to account and asking them, “What is this policy? Is this a trust or is it not? How much authority have we given in fundamental industries to persons whom in the panic of those years we called ‘rationalisers’?”

I think that the idea that certain fundamental industries in this country are retrograde in their organisation is a criticism which can be turned upon them only from consideration of business experience itself. There has been for forty years in the business world a tendency to amalgamate. It is the very opposite of the truth that the business world needs at this time of day to be told about that. If there is such a thing in reality as the economic type of the efficient business man then it must be supposed that he has kept up, to some extent, with the movement of the last forty years. Therefore, if I were asking, “Is an

industry retrograde?" I would first consider this: What has been the movement of industrial economy during this generation? is that industry in step with it, or that branch of the industry in step with it? That is turning the experience of the business world as a whole upon that industry. From that point of view one can consider, for example, the Spinning and Weaving Sections of the Cotton Trade, or the Coal Trade, of this country in relation to general business movements throughout the world in the last forty years, movements which for forty years business men themselves have said, often in face of great opposition, were rational. So that in the first place one can turn on a particular industry this experience derived from the history of industry, the general ideas of industry, which has believed for a long time that there were advisable degrees of amalgamation and co-operation of a capitalist kind. That is to say, it rests with certain industries and certain branches of industry to say why they should not have it. They may have a good explanation, but as a first approach one can consider the whole evolution of the business world in the last forty years as the more silent progress of rationalisation, and can now ask in which industry it is retrograde, and why. The second way in which one can approach is, one can take the condition of any particular industry in this country and abroad; that is to say, one can turn upon a particular industry or branch of an industry in this country the experience of foreign leaders, because really valuable criticism does come from the organisation that has been tried abroad and the success with which it has been tried. The Coal Mines Bill appears to be largely based upon that kind of comparison, to be an application to the organisation of the Coal Trade of the experience of the German leaders of the Coal Industry, and to rest, therefore, on a criticism of this kind: Why is it that the Coal Trade of this country has not found it worth while to adapt itself to schemes of organisation of which it must have known, which have been very public indeed since 1894; why has it stood out of them; what has it to say for itself in that respect? It may have a good answer, but that is the second way in which one can approach the idea of rationalisation.

But still, I would not say that any industry had failed in its construction or in its general co-operative organisation merely because it was out of step with certain general business developments. I can understand the Cotton Trade in its Spinning and Weaving Sections may have had good reasons. We were very proud of the Cotton Trade before the War. One cannot in the

panic of the moment fly to extreme statements. I can understand that the British Coal Industry may have a case to offer why it has not previously cartelled itself, knowing the experience of the German cartel. Indeed in 1920 the first Coal Commission most deliberately rejected the construction which has now been arranged for the Coal Industry by the Government.

Again, I would not say that merely because an industry is not organised in the foreign way, therefore it has failed to be rationalised. The kind of criticism which is now applied to certain fundamental manufacturing industries was applied immediately after the War to Agriculture. I was a member of the Agricultural Tribunal, and our duty was to compare British agriculture with various foreign agricultures; that is to say, to turn upon British agriculture the experience of foreign farmers, and see the things that they had done to rationalise and try to improve the conditions of their agriculture. One thing with which I was greatly impressed was, that there was practically no scheme which was common to any large number of foreign countries, and that if you took the agricultural leaders of foreign countries they differed enormously in the schemes which they thought were good for agriculture, and as soon as one extended one's view one saw that there was a great deal in every country's organisation of their fundamental industries that was unique, and had to be unique. The kind of co-operation which succeeded in Denmark completely failed in Germany, the kind of agricultural credit for which Germany is well known does not exist in Denmark, and so on. Therefore one has to be careful in holding up foreign schemes against British industrial development, and in assuming that, because we have not done this or that, therefore our Coal or Cotton is retrograde. We must wait for the Coal Industry to say what it has to say about these things, and merely put up to it the case, "Things are being done in this way abroad; they are not being done at home; there is great distress at home; we suggest to you that you consider these matters."

We have these two lines. We can turn on the organisation of certain industries the test of the general experience of industry in the last forty years, and we can turn foreign example upon them. But that is not enough. I do not think that I would accept the view that our Cotton Industry required reorganisation from the basis, in its Spinning and Weaving Sections, or the Coal Industry; I would not accept the view merely on the general course of industrial development—there might be exceptions, and coal might be one of them—nor on foreign example. I

would want, in the third place, the assurance from leaders of authority in the industry itself that they were acting spontaneously, and that they believed in the movement. That is why I am interested to know what the representative of the Cotton Trade is going to say. He is the rationaliser of an industry—before the War he would have been called the promoter of a combine—and I want specially to know whether the steps he is taking are taken from his own conviction; whether, that is to say, the organisation which the leaders are undertaking within the industry has their approval, has the consent of those who are closest to the technical and industrial conditions of that industry. In that respect there appears to be some difference between the Coal Trade and the Cotton Trade. So far as I am able to judge, the movement for “industrial rationalisation” does have that sanction in the Cotton Industry. I believe that those into whose hands it has been put think that on its own merits, not as a panic scheme for getting out of the present unemployment, but as a continuous phase of the Cotton Industry now and in the future, this movement is right. There is nothing necessary in that conclusion. It might quite well have been the case that the Cotton Industry was better conducted on an individualistic basis, but apparently the leaders, the rationalisers, in whose hands the matter now rests, do believe that as a permanent phase of the industry a far larger degree of amalgamation will be needed. That is not so true of the Coal Trade. The leaders of the Coal Trade, so far as I am able to follow their statements in the Press and in Parliament, are against the imposition on them by outside authorities of certain degrees of amalgamation. And that is a very important fact. I do not believe that rationalisation of that kind as a permanent phase is likely to work. It is most unfortunate that, if there is an external criticism of the Coal Trade on the basis of the number of units on which it works, the economists and journalists have not been able to persuade those who are most closely in touch with the technical management of the Coal Industry. I think the German Coal Industry has been extraordinarily successful because of the mutual inter-actions of cartellisation and fusions. It has been extraordinarily successful in showing what kind of leadership a great industry can have—what sort of co-operation there can be between industrial leaders, the representatives of the workmen, the representatives of the Government, and of the consumers, in one inter-locked organisation. It is, in my view, a very great fault in the present construction under the English Bill that, instead of

welding these into one system of control, we should have endeavoured to impose only a capitalist organisation, and then doubled the organisation by putting watching committees outside. It takes a great deal of watching to make a full-time job, and the most natural and regular way of arranging for that is inside the organisation.

With regard to this third test—the consent of the most authoritative minds in the industry to the schemes of amalgamation and co-operation—it is not so clear that we have got that in some cases as in others, and therefore the matter is more doubtful, and I think when we have a position like that we must suspend our judgment.

These, then, are the lines on which I sketch the problem. We cannot merely point out, as journalists or economists, that there have been amalgamation movements for a long time. Everybody knows that. We cannot merely, as a matter of a present phase, press schemes of organisation beyond the consent of the leaders of industry. We must consider that the phase will change, and those who have responsibility must be confident that in five years they will not feel that they were rushed by the great economic dangers and difficulties of the present time into a remedy which sounded basic and fundamental without a real consent on the part of the leaders of the industries concerned. That is the great difficulty that I see, that the phase is going to change, and I do not want us five years hence to be asking what these monopolies in the Cotton Trade mean. Because, the start of movements of this kind is sensational, is public, and in a time of depression any sensational start may have very large public and economic support; but once they are started their influence is concealed; we shall not know so easily the real tax which organisations of that kind may continue to impose, unless the law of this land adapts itself to the rationalisation movement, unless there is some even development of the law regarding combination with the progress of combination.

Well, sir, I am afraid I have spoken rather longer than I had intended. I hope the Meeting understands that I am putting up to it the question how far the general business experience over a long time, and foreign experience of particular industries, and the opinions of leaders in those industries, have to be taken into account in the discussion of whether we ought to impose upon fundamental industries in this country, at any rate compulsorily, larger schemes of amalgamation.

MR. J. RYAN (Managing Director of the Lancashire Cotton

Corporation): I hardly anticipated that I was to be called upon to take quite as leading a part in this discussion as I am, apparently; and I should have wished that my Chairman had been here to continue the discussion. Perhaps you will forgive me if my remarks are not quite in the sequence that they should be. I think I can best fulfil the function thus imposed upon me by telling you a little of the story of how our present organisation commenced.

I do not think we commenced it because we wanted to rationalise. I think we should have gone on just the same if we had not been in possession of that particular word. I am not quite sure that we know what "rationalisation" means. We do know what we are setting out to do, and if other people tell us we are "rationalising" we can say what we mean by "rationalisation." Generally speaking, if a definition is required, I should say that we look upon it as a way to eliminate every possible waste of energy or material by the most efficient production of the article we are called upon to produce. If one goes into detail the definition brings difficulties. I am not going into detail. To understand the Cotton Trade, and its position as far as rationalisation is concerned, is very difficult. Our problems seem in very many cases to be different from the problems which we read about should be the problems of rationalisation.

Some of you know, perhaps, that some three years ago a movement was started which was an endeavour to get together the spinners of the American cotton with a view to combining together in some form of cartel, to adjust production to the present needs, and some 70 to 75 per cent. of the people concerned were collected together for that purpose. The idea of the President of that Association, Mr. Tattersall, and myself, and one or two more—but not many more—was that we should endeavour to produce a stable atmosphere in which we could reorganise. I am afraid that a very great number of the supporters of that movement were in it for quite a different purpose. Their idea was to raise prices so that those prices would give them satisfactory returns, and that they could fold their hands and do nothing, and we very early discovered that that particular policy would lead to disaster, as, in fact, it did. But with this before us, and realising that that particular element represented perhaps the bulk opinion of the Lancashire spinners, we had to look round for some alternative, and in our investigations of the problem I think this position arose:—We were faced with two problems. This has been very clearly stated on several occasions by Professor Clay. There is a

major problem and a minor problem. The major problem was the immense loss of overseas markets; the minor problem was the appalling losses which the spinners, in particular, were sustaining. We were told that to regain those markets and develop them required a reduction of price; to place the spinners even on a cost basis required an increase in price; the two problems seemed diametrically opposite, and we set out to find some means whereby a solution of the minor problem as spinners would be a solution of the major problem too. It was quite evident that if we were going to maintain and increase our trade we would have to have a reduction in prices; because we must not forget that we were facing an expanding world trade in cotton goods, a trade which is still expanding. It is somewhat difficult at the moment to reconcile the figures of the consumption of raw cotton with the apparent distress in all the cotton-producing countries. The figures of the consumption of raw cotton still show an increase. Whether they will show one in another six months I do not know. I should not expect they would. But up to to-day they have steadily shown an increase. But instead of this country getting the steady increase year by year, as part of that world increase, it turned the other way, and we were actually reducing the amount, and goods which we had formerly supplied were being produced and used in increasing quantities by our competitors. I do not think that we ever had behind our minds the possibility of a monopoly; and, as far as that goes, I do not think that the future need hold any fear in that particular direction. This country can never, as far as I can see, control world prices. We might have done—we did do—generations ago, but there is at least as much world export trade in cotton goods to-day as we do ourselves. England's share is now about half. And whether we would wish to, whether in five years' time the phase would have so turned that we were in a position that we wanted to, I do not see that we can ever do otherwise than have to produce at strictly competitive prices. We had, therefore, to find some means of producing at a cheaper price. The individual spinner has very little means at his disposal. The bulk of his production cost is raw material, and in his wages and his consumable stores as a unit there is very little scope. Looking round the whole problem, as far as we could understand, there were two necessities if we were to get out of this present position; the first was, that we must combine the units together on a larger scale to obtain the benefits of amalgamation from a production point of view, and secondly we must provide some closer link with the actual

seller of our goods. Now the Cotton Trade has a bigger problem, which is very seldom touched upon in academic discussions on rationalisation, and that is the segregation of the various parts of production. No one unit produces the finished article. I am speaking in general. We have a huge number of units to do one stage; some 700 or 800; another 700 or 800 to do the next stage; those pass on to the finishers, who then pass them on to someone else, who sells the goods. It was held, I think with some truth, that up to, at any rate, a year or so ago the whole trade had been carried on at a profit; not a large profit, but nevertheless the net result of all the operations in the trade had been a final profit, but that although some sections had shown very considerable profits, others had shown very considerable losses, and that those particular sections were in danger of being destroyed. It was therefore necessary to find some means of joining up the seller of the goods, the man who possessed the goodwill—if one can call it so—of the product, and the man who produced the product. Now, so long as the buyers were in a position to buy at below cost there was obviously no inducement for them to join up with the producers. Inasmuch as the producers had been selling below cost they had been, of course, helping to make the major problem not so acute as it would otherwise have been. We had been giving away some of our capital, in effect, in the price at which we had sold the goods. We were forced, finally, to the necessity to combine the smaller units into larger units.

The opener has laid very great stress upon the necessity for some sign from an industry that they believe that rationalisation is good for the industry. I am not sure that I agree with that. At any rate, if it is true, then one could say that rationalisation is bad for the Cotton Industry, because the present owners of the units are not in favour of rationalisation; they are definitely against it. Education is growing, and there are many more people in Lancashire who believe in large-scale amalgamation to-day than there were twelve months ago, there were many more twelve months ago than there had been twelve months before that, but in the main the owners of the units are in favour of nothing but the continued ownership of those units, and they will resist any effort to join that unit with other units into a larger concern unless they are as much a part of the larger concern as they are of their unit. Well, that is obviously impossible, and of the amount of rationalisation which has gone on in Lancashire, and of the amount of combination that has gone on, I think

hardly any can be traced to the desire of the individuals to join together. Before the War there was only one outstanding spinning combination—the Fine Spinners. They had been brought together by the stress of circumstances. Their industry was in a terrible state, and they were in danger of bankruptcy. They joined together at the very low point of a depression, and have been uniformly successful ever since. Several other amalgamations arose in the boom, but I think they were, generally speaking, more from a desire to enable financiers to float amalgamations rather than from any real need or demand for amalgamation. Ourselves and one other have come into existence since. There are various reasons for the other one, but I do not think that can be put down to a feeling that it was the only thing to do from the point of view of the good of the industry. I will not enlarge upon what I think they were, because it is not material to the point. As far as we ourselves are concerned, as you know, the bulk of the units that belong to us were in very dire financial stress; they in effect belonged to their creditors, and their creditors decided that the state of things that then existed could no longer continue. If those creditors whom, one could argue, are the leaders of cotton spinning—they are not cotton spinners, but the cotton mills belong to them—if their feeling that rationalisation was the only way out is what the opener means by the “views of the leaders of the trade,” then I can say that the leaders of the trade are in favour, but the individual cotton spinner definitely is not. And I believe that it is necessary to look much further than that. I do not think we can leave it to the individuals. Vested interests will always resist a movement which tends to remove them, and vested interests can very easily hold a position which is acceptable to themselves but yet is acting as a parasite on an industry and slowly driving it to death, and to say that because that state of things brings about an opinion that rationalisation is not wanted, therefore rationalisation is wrong, would, as far as the Cotton Industry is concerned, in my opinion be wholly wrong.

Gentlemen, I am taking up a lot of time, and I cannot enlarge upon it as much as I would like, but I want to show you in a small way how the position has now turned—that the whole system must be, in my opinion, out of date. Your tea-room upstairs provides me with an excellent example. You have on your tables there some cloths made in Japan. I do not suppose you know, but they are. (Laughter.) That particular cloth is a cloth which some months ago we set out to investigate, with a

view to competing with these Japanese imports, and we discussed the matter as spinners with the various other parts of the trade who would be concerned in the making. We offered the Japanese samples to the people who would have then taken them up as far as having them printed, and said, "Would you be prepared to tackle this thing with us?" They said, "We are not accustomed to dealing with such low rubbish"—(Laughter)—"and we are not prepared to go forward with it as far as we are concerned." I did not mean to imply that the cloths upstairs were low rubbish. They have, in effect, been beautified by the particular people I am talking about—or their counterpart in Japan—to make a very different article from what they appear when the weaver has finished with them, but, as you will understand, those particular cloths in the grey state are sent to the finisher to have a pattern put upon them, and stuff that looks horrible when it goes to the finisher often comes back looking very beautiful. They said they would not be prepared to tackle that particular trade, but they said, "Look here! These things sell at"—I think they were 2s. in the shops—"we could handle a very good article—a very much better article—at very little more money." We went into it fully with them, and we discovered that we could produce an article which they would accept at 1s. 3d.—it would finish up at 1s. 3d.—and it would seem that between 1s. 3d. and the selling price of 2s. there was still a margin which would make it worth while somebody selling it. But there is not, and as long as they can buy the Japanese cloths at less than 1s. 3d. they would rather make the larger profit by selling those goods than sell the better article. The net result was that nothing happened, and the Japanese cloth continues to come in, and you continue to buy it. Now if one organisation was handling that product right through, no one would see the article until it had been beautified, and the test which they applied—they said they would never handle stuff in that state—they would not be called upon to carry out. They would be asked to do a job for somebody who was going to finish the job themselves.

I have been looking at a large range of samples collected by the Mission that went to the Argentine. Those samples are very beautiful cloths, but they are made out of rubbish. I have taken part in a discussion this afternoon, and the leader of one of our biggest Stores said, "Yes, it's all right saying 'Rubbish,' and talking about 'quality,' but what is quality? Years ago the ladies when they talked about quality wanted something which lasted for ever; now it lasts, perhaps, not quite as long as the fashion—which is not very long. They want an article which

looks nice, but it does not matter if they do not want it any more after this week. If you can produce an article which will last the length of time it is required to last, that is what quality means to-day." Well, England is still making goods in the old quality line, and her merchants are still rejecting goods which do not come up to that line. Our competitors are producing goods which are of the type which modern tendencies demand. Now the present individual organisations will never allow that particular development; it is necessary for someone to carry the whole thing right through to the end. There is no way that I can see except by large-scale amalgamations with the resources to do it, and, whatever the future holds, I cannot see that that particular problem can be tackled in any other way.

I do not profess to know anything about the difficulties of any other industry. I am quite ready to believe that they are different from those in cotton. But I do say that we are developing our organisation in a direction which should be able to stand the problems of 1930 just as easily as the problems of 1920, and certainly to stand both in a better and more efficient way than the old system did.

MR. KEYNES: Could Mr. Ryan tell us in a few sentences where the Lancashire Cotton Corporation is expecting to get its economies from?

MR. RYAN: First of all, there is the better buying of the raw material; secondly, there is the increase of production from machinery on standard counts and cloths; thirdly, there is the cheaper buying of bulk consumable stores; fourthly, there is the power to pay for experts in each particular phase; fifthly, there is the power to spend money upon research, in equipment, and in processes which can be immediately adapted under factory conditions; sixthly, there is the contact between the various processes, which is impossible under present arrangements. I think those are the main heads. With regard to the first one, buying of the raw material. What we have done so far has amply proved what we set out to do. Secondly, we are buying to-day at prices which are as much as 35 per cent. below what the individual mills pay in stores. What little attempts at standardisation we have been able to make—because, of course, we depend upon the offtake to get the full benefits—are already showing that there is a material saving there. Those are actual.

A VOICE: Is there a saving in transport?

MR. RYAN: We are not in a position to save very much on transport, from a yarn point of view, because, of course, the man who buys from us pays all that.

THE VOICE : It comes in the price ?

MR. RYAN : It comes in the price finally ; and inasmuch as we shall, of course, co-ordinate the work so that we do not carry stuff across Lancashire as many times as it is carried at the moment, there will be saving there. We can already show some amount of saving from a co-ordination of journeys. As far as our own transport is concerned, instead of lorries of one unit coming empty from Preston to Manchester to collect cotton and going back loaded, we have them bringing cloth from one of our other units into Manchester and then loading up with cotton for another one. That is, of course, not a very big factor anyhow.

MR. WATSON COLLINS : I was very much interested in seeing in to-day's paper a report of an address delivered by Dr. W. H. Eccles, the President of the Institute of Physics, on the influence of physical research on the development of wireless. He was referring, evidently, to this question of rationalisation, and he said it was uneconomic to standardise improvements of machinery or products too soon, before the latest improvements had been incorporated, and that it was not economic to modify a standardised form until the cost of adapting it had been recovered. I was very glad, having that in mind, to hear from Professor Macgregor to-night a warning with regard to the danger that attaches to some forms of rationalisation to-day. I want to ask this, among other things : What guarantee is there that the conditions of to-day will last even twelve months, let alone five years ? We are told—I am not going to touch on politics to-day—that possibly in a few years many industries will be assisted, or fostered, by means of safeguarding duties, or by means of general protection. I want to know what will be the position of those industries which, with that aid, set out on a large process of rationalisation, and then find out, perhaps at the end of another few years, that that artificial aid is entirely withdrawn. I want also, as a business man, and one chiefly concerned with finance, to ask what guarantee the business man has with regard to the supply of money, with regard to the finance that he will need for this scheme, or that the industry as a whole will need. Then there must be some very definite security for those who are engaged as workers in these great industries. I believe that this is one of the most important problems that has got to be solved before these schemes can be considered satisfactory.

PROFESSOR P. S. FLORENCE : Professor Macgregor mentioned the test of spontaneous agreement of the men in the industry with the movement of rationalisation. Well, I should have to agree with Mr. Ryan in disagreeing with Professor Macgregor.

I believe that if that test were adopted, except possibly in the Iron and Steel Industry, we could never say that rationalisation was a movement to be supported. The business men, not merely in the Cotton Industry, with which I am not familiar—though I am with other industries—mostly seem to me, for various reasons of the most diverse nature, to be likely to be opposed to rationalisation. The sort of reasons I mean are usually brought under the head of individualism. What it actually means is, that they prefer power over their own little works to having a small share, with possibly very little power, in a large amalgamation. Secondly, they rather enjoy, as far as I can make out from talking with them and listening to them, the little game of competition; they love the secrecy of *private* enterprise and the sense of playing for a side; it is possibly a very British instinct; and they feel there is more zest in fighting against a rival than in combining with him. Thirdly, they like the feeling of owning a little property; it is rather a *petit bourgeois* point of view, but after all, men in the Wool Industry or, say, the Brass Industry are *petit bourgeois*, and have been since the middle of the Victorian era in England. Finally, the most important reason for their wishing to cling to their own little business is the feudal idea of handing it on to their family.

This brings me to the centre of the whole question, namely, what economies will rationalisation bring about; and that is the thing we ought to discuss. I do not believe that even Mr. Ryan gave the most important economy, namely, that in the reshuffling that will occur under rationalisation you will get the industry under better management. It is not a question of the number of managers, having fewer managers, but of having better managers. I think Mr. Ryan illustrated that in his example of the cloth. Obviously from the management point of view there was not good management. By good management I mean trying to produce an article that the consumer will want. There was not that adaptation to the consumer's wants. Incidentally I may say I think the example he gave is extremely typical of a number of industries—the Pottery Industry, for example. The potter insists on putting out cups and saucers with a certain glaze, which to him is all-important, but about which the consumer knows nothing whatever. You have to look at it in the light to see whether it is a "good" pot, or plate, or whatever it is. The consumer does not care about that. A cheap piece of crockery with a nice pattern is what he wants, which can be produced cheaply in Germany. It is typical of the Pottery Industry and many others that there is not this adaptation to the consumer's wants. What we want in England is better

management; management that will take the trouble to find out what the consumer wants, by embarking on research or otherwise, and will get away from the old tradition of merely producing a certain article of a certain standard which only appeals to the man in the business; it is a professional standard rather than a consumer's standard. That seems to be the most important economy of all that you will get as a result of this re-shuffling, as a result of doing away with hereditary businesses, as a result of getting rid of people who merely want to play a game, getting rid of people who merely want a little petty power, and substituting people like Lord Melchett, or possibly like Mr. Ryan himself, who are really bringing reason to bear. In other words, I think one may say that the great economy of rationalisation is to put business—for the first time possibly—in the hands of rational people.

MR. C. R. CURTIS (British and Continental Banking Co., Ltd.): I join issue with Professor Macgregor straight away. When I first started to study economics I found it was almost impossible to pin anyone down to any definite statement; that every economic law seemed to be hedged about with such a succession of "peradventures" and "perhaps's" and "whys" and "wherefores," that it was almost impossible to say "This will happen" or "This will not happen." Well, that appears to be the position which Professor Macgregor has taken up with regard to rationalisation. He is open-minded on the subject, and before I say any more I will admit that I am not. I am biassed right from the beginning. I am biassed in favour of rationalisation, because I have seen it working in Germany; I have seen it in France, or I have seen the results of it in France, and I have seen the lack of it in England, and it seems to me that in order to get some idea as to whether it is desirable or not we might, as economists, study it from the historical point of view. Right through the ages the principle of subdivision of labour has been going on. Civilisation has been one long state of improvement. There is, however, one point that seems to have been missed: why this process has been slower in England lately than on the Continent. I think there is one very obvious reason for that, and that is the attitude adopted by our big financial institutions. There is one tremendous fundamental difference between banking procedure—I am speaking as a banker now—in England, or in the British Empire in general, and on the Continent, especially Germany. Our bankers say that their clients are clients for purposes of depositing money only; that bankers are not specialists, and they have no right to interfere in their clients' private affairs;

therefore if they are asked for an advance, they try to obtain a mortgage on the floating assets of the industry, in default of better security, and if the worst comes to the worst they foreclose, if they can. On the Continent they adopt quite a different attitude—in Germany especially. If you want an advance from a bank for the purpose of carrying out some scheme, the bank inevitably insist on one of their own directors joining the directorate, and they insist on playing a very big part in the development of the industry. They say, "We will lend you this money, but we must see what is going on; we do not regard ourselves as lenders of money, we regard ourselves as custodians of this money, which has been given to us by other people. Therefore we have a trust in this money. Therefore we are going to see how it is spent." That is the reason why, the moment things began to look black in Germany, the banks stepped in and said, "We have loans out to this, that and the other firm, and they must amalgamate," and they were able to exercise the necessary pressure to insist that that was done. In England—I do not know in Cotton, but I do in the Wool Trade—there are innumerable frozen credits at the present moment in the books of the Big Five and the other big banks which represent advances made to the Wool Trade, and which at the present moment are absolutely frozen, because there is no hope of the money being repaid, and were the banks to foreclose it is doubtful if the assets would realise as much as 50 per cent. of the original amount of the loan. But in spite of this we have only lately found any desire in the minds of our financial institutions to combine together, and to insist on this movement. I do not know how far the Bankers' Industrial Development Company is going to move, but I sincerely hope, although certain rather obstinate gentlemen in the North Country will object very strongly to what I say, that they will in some way or other be able to turn over some of these frozen loans to that Company and say, "Here you are; take this responsibility and see that the necessary amalgamations are carried out." Because I agree with Mr. Ryan that, provided we have good management—that is the crux of the whole matter—a large amalgamation must inevitably result in economies.

MR. ROUNDWAY: I only intervene because apart from Cotton there has not been any speaker who is actively engaged in production. First of all, I want to thank Professor Macgregor very sincerely for the very balanced and sane and suggestive view he took of the question. People who, like myself, have spent their lives in production are proud of British industry. We believe that there is every reason to be proud of it. We are inclined to resent

sometimes, in connection with this rationalisation discussion, the rather cheap, superficial and popular view which, if I may say so without offence, was rather clearly exemplified in the speech of the speaker before the last. It was this "cheap individualist," this "little man playing a game," this "petit bourgeois," who built up the greatest economic structure the world has ever known, and the greatest manufacturing nation in existence before the War, and there is not any evidence to persuade me that had it not been for the extraordinary upheaval incidental to the War we should not have maintained—and, indeed, we still maintain—our place now. There is not a producer in this country to-day who is not every day he is in his works endeavouring to discover how he can make things more cheaply, how he can get a machine that will eliminate handwork, how he can prepare jigs and tools and fixtures to speed up production, how he can standardise his product so that he can make two units, and ten, instead of one. It is his job. He is constantly at it. And it is in that attitude of mind that the producer, with the exception possibly of the Cotton Trade, which has always been a law to itself, will approach the question of rationalisation. I do not believe, and certainly not in my experience is there any inherited or inherent prejudice against amalgamations that can be shown to be necessary and likely to add to the betterment of British industry; but do not make any mistake; there are very clearly defined limits as to what you can rationalise. I have this last week been concerning myself with a certain product which is rationalised, and I mention this to show you that rationalisation is not necessarily in the interest of the community. The production of this product has been rationalised. The result is that the price has gone up, which is not necessary, but is very often one of the effects. The other manufacturers who use this product as the raw material are actually having to put their heads together now to consider how they can start a new competitor to the rationalised producer in order that they may get their product at an economic price. And so it goes on.

I finish on this note:—Rationalisation has gone ahead in Germany much more rapidly than here, for special reasons. If it can be found that by rationalisation British industry is going to be improved in the interest of the community in general, then I do not know of anything in the British character or the British point of view that will impede that movement and impede the happy result that we expect to see from it.

The discussion was continued by PROFESSOR STOKES, and PROFESSOR MACGREGOR replied.

MARSHALL ON RENT

A REPLY TO PROFESSOR OGILVIE

PROFESSOR OGILVIE in the *ECONOMIC JOURNAL* for March 1930 has collocated passages from Marshall in such manner as to make the doctrine of rent appear self-inconsistent and inconsistent with other parts of the theory of value and distribution.

I believe that Marshall's analysis of rent is fundamentally sound, and that Professor Ogilvie's ingenious attack upon it should therefore be answered. The object of his criticism seems to me to be in reality a construction of his own, resting upon a misinterpretation of Marshall's views.

1. *Diminishing Returns*

Diminishing return as a relation between quantity of effort and quantity of output. Professor Ogilvie asks: How can unlike things be "related"? To which we answer: Diminishing return by necessary implication represents more than one conjuncture. The relation in question is, surely, between *ratios*, the ratio of change in the quantities of one thing to the ratio of change in the quantities of another thing, under certain guarding assumptions as to the homogeneity of the things respectively,¹ the unit and scale of change. This, I submit, is not to "divide cart-wheels by oranges"—the elementary error in logic which Professor Ogilvie imputes to Marshall!—but to set like against like to measure their difference in magnitude. Professor Ogilvie asks, secondly: Why quantities (really ratios) of effort as compared with quantities (really ratios) of output, rather than prices, as the terms of the comparison? My answer is: (i) Output and effort are the quantities that are ultimately important for economic welfare; (ii) they are, in fact, causally connected. (iii) If, therefore, we are to understand and explain the economic forces that lie behind prices we must distinguish these influences on the side of supply analytically (whatever difficulties may present themselves in practice) from the influence of demand or other factors which coincidentally affect prices.² Are these fundamental propositions not valid?

¹ Cf. Marshall, *Principles*, p. 319.

² *Idem, ibid.*, p. 320, text and note; also p. 171.

Diminishing returns as a phenomenon of "economic incompetence," or as a phenomenon of "economic pessimism." Professor Ogilvie's descriptive expressions seem to me unjustified. Marshall distinguished various cases in which a failure of due proportion between the factors of production might arise, leading in each case to the consequence that additional output is a function of more than proportionate real cost. He was careful to point out that, the origin of the failure and the duration of its implied consequences being in the several cases different, there was "no very close connexion" between the several senses in which the term Diminishing Returns might be employed. Professor Ogilvie's own suggestion to confine it to one, namely to the short-period technical difficulty of adjusting the supply of fixed appliances of production to meet an alteration in demand, comes late, in view of the recent development of the doctrines of increasing and diminishing returns. But the question of terminology apart, it is only fair to Marshall to recognise that he uses the case of the "incompetent" farmer as a concrete example to illustrate points of difference from, as well as resemblance to, the general principle he wishes to bring out.¹ Moreover, the tendency indicated by Marshall for additional produce from well-cultivated land in an old country to be obtained only at more than proportionately increased real cost is not fairly characterised as "economic pessimism." For Marshall was not writing history as Professor Ogilvie implies, by urging that the economist is not "called upon to weight the scales permanently in favour of nature and against poor man" (p. 4). Marshall pointed out that the tendency in question was subject to the condition "if demand should increase without limit," and explicitly argued that improved general methods of production might push back its action.²

2. *Rent as Surplus*

(a) *Margins.* Professor Ogilvie offers two types of argument against the measurement of rent as the surplus produce of land over the total return which just remunerates the cultivator, namely, the marginal return (*i.e.* the return to the last dose of labour and capital which he finds worth while applying) multiplied by as many times as he has applied doses.

Professor Ogilvie's first argument is that the margin as fixed at a particular time and the margin as fixed at successive points

¹ *Principles*, p. 408.

² *Ibid.*, p. 153 and p. 633.

in time, perhaps very remote, ought to have different names and be illustrated by different kinds of diagrams. (He does not, incidentally, suggest how an appropriate diagram in the latter three-dimensional case is to be devised for presentation on a plane surface.) But is it improper to draw a normal supply curve through time to cover an indefinite number of years provided no revolution in technique has taken place—as Marshall explicitly presumes in the particular instance involving a large number of years to which Professor Ogilvie refers? ¹ Conditions may be “utterly different” at the point of origin and at the “so-called margin”; but if they are the result of slow change *by known method*, are their results not properly reflected in a given supply curve? Opinions may differ as to whether or not a technical revolution has taken place in a specific historical period. But the logic of Marshall’s representation of the law of returns through time in the presumed absence of technical revolution is not open to challenge. Where, moreover, it is agreed that a technical revolution has taken place, Marshall would be the first to argue that a new supply curve was necessary to describe conditions before and after such a revolution. The previous supply curve shifts its position; it is likely also to alter its slope.

Professor Ogilvie’s second type of argument in the present connection is to point out (following Cassel, Hobson and others) that the “dosing” process of reasoning, if applied in the case of any factor, can, “witch-like, raise a surplus” from that factor. Hence (i) the factor land is not, on this analysis, peculiar, and (ii) an analysis so indifferent in application must be suspect.

As for (i), Professor Ogilvie draws a comparison between a one-man tobacconist dosing himself with borrowed capital, a milliner dosing the capital of her shop with additional assistants, and a farmer dosing his land with labour and capital (p. 6). Does it follow, as Professor Ogilvie implies, that the return to land constitutes a surplus in no sense in which the return to any other dosed factor might not likewise be said to constitute a surplus? In answer we require two distinctions unnoticed by Professor Ogilvie. From what point of view are these several forms of return to be regarded, that of the individual producer or that of society? Are short-period or long-period returns in question?

Now the individual producer—tobacconist, milliner, or farmer—will in the long run vary the amount of each factor, including land, that he employs, until its return just covers its cost. To a given entrepreneur the long-period earnings of land are a neces-

¹ *Principles*, p. 159.

sarily expected income from investment, alternatively a necessarily contemplated expense, according as the land is to be bought or hired. "Land is but one form of capital to the individual producer"—the words are Marshall's.¹

Similarly, in the short run the individual producer, agriculturist or industrialist regards the return from land as from a form of capital. But any such return comes to him in the nature of a surplus for as long as he is committed by contract or technical considerations to the number of square feet of ground, or cubic feet of building—as the case may be—that he already holds. For his liabilities in respect of the fixed factor are determined; and the earnings to be attributed to it can only be the difference between the total value of the produce and the total cost which he finds worth while incurring in respect of those factors the employment of which he can alter at will.

Again, from the point of view of society, the short-period return from land is analogous to that from any other factor, the total supply of which is, for the time being, fixed. All such returns alike represent a short-period surplus. This conclusion follows from an argument given below (sections 2 (b) and 4). It therefore does not require discussion here.

The same argument shows that not until the return from land is regarded from the point of view of society in the long run does its difference from other forms of return appear. It follows from it that the total supply of land, say in Great Britain, being permanently fixed, its long-period return constitutes a social surplus in a sense in which the returns to the other factors do not. For the latter sooner or later are influential in eliciting a given scale of production; in the long run they are translated into supply prices—true price-determining costs. Land as a whole in the long run in the view of society receives only the surplus comprised by the difference between the value of the produce and the sum of these costs, the value of the produce being a joint function of demand and these costs.

The answer to Professor Ogilvie's contention that the return to land, regarded as a surplus, is not peculiar, is that Marshall never said it was under all conditions, and from every point of view.² In the long run, from the point of view of society, how-

¹ *Principles*, p. 430.

² "Even the rent of land is seen, not as a thing by itself, but as the leading species of a large genus; though indeed it has peculiarities of its own which are of vital importance from the point of view of theory as well as of practice" (*Principles*, p. 412). Could any statement of the case be more specific? Or, indeed, more familiar!

ever, the return to land is, as a surplus, unique. So much and no more Marshall rightly, as it seems to me, maintained.

As for (ii), analysis by "doses," raising a surplus, is rightly suspect where wrongly applied, *i.e.* in the absence of good and sufficient reason for maintaining a certain factor(s) fixed in amount whilst dosing it (them) with increments of another (others). Professor Ogilvie in his examples has omitted to inquire—as have others before him, but as Marshall in his discussion has not—into the different points of view from which, and the different conditions in which, it may be legitimate to postulate the relative fixity of supply of some particular factor(s).

(b) *Costs.* The elliptical presentation of an argument is apt to be dangerous: Professor Ogilvie would seem thereby to have misled himself into an erroneous representation of Marshall's doctrine of rent in relation to costs. The middle term between cost and price, namely supply, finds no mention in this connection. By ignoring the *functional* character of costs in respect of supply, Professor Ogilvie naturally finds arguments made to turn on their metaphysical, or substantive, nature incomplete and unsatisfactory. Let us consider his contentions in turn.

(i) Marshall, because of an obsession about personal exertions, identifies real costs with such exertions (efforts and sacrifices), and money costs (*i.e.* expenses) with the money sums paid for them (wages and profits),—to the exclusion of rent in both cases (pp. 6, 7). But Marshall's argument is not that wages, say, are paid *because* labour represents effort. He argues that inasmuch as labour represents effort, and man is so constituted that the supply of effort is therefore a *function* of the return it obtains, that return is, in consequence, a price-determining cost. Land, on the contrary, represents no human effort. It follows that a reduced return will not lead men to withdraw land from use. Nor will, in an old country, an increased return make more land available,¹ except through improvements which, when undertaken, represent capital outlay. The supply of land is therefore *not a function* of the return it obtains. Its return is, hence, not a price-determining cost, but a surplus described as rent. Marshall's distinction rests, not upon a difference in the substantive nature of the several forms of return, but upon the fact that wages and profits are, whereas rent is not, *instrumental* in affecting

¹ Professor Ogilvie, later in his article (at p. 22), refers to this point as a probable reason why Marshall held special views about land. But he neither denies the comparative fixity of land and the comparative variability of capital as a fact, nor does he show why it is not good and sufficient reason for differentiating between rent and interest in so far as they are affected by this fact.

supply and therefore price. Therefore wages and profits are true costs, *i.e.* price-determining costs; rent is not. The distinction would appear to be valid.

(ii) Marshall is open to criticism for his argument that cost at the margin of production is determinable without reasoning in a circle, whereas cost as determined from non-marginal units of produce is not, since the latter so-called cost includes rent, "which is wholly an effect" of cost in its significant price-determining sense—to put the argument rather more explicitly than Professor Ogilvie does in his synopsis (p. 7). The grounds for criticism are:—(a) rent as an effect rests solely upon the assertion that labour and capital are the only costs; (b) this supposed case of circular reasoning may (possibly?) be resolved into a case of mutually interdependent phenomena.

(a) From the discussion under (i) above it follows that the identification of labour and capital, exclusive of rent, with price-determining costs does not rest upon mere assertion. No more need be said upon this point.

(b) To convict Marshall of failure to recognise the mutual interdependence of phenomena for fear of circular reasoning, where the facts demand such recognition, would indeed be to see him hoist with his own petard. But it can hardly be maintained that he ignores this possibility in the present connection. For, under given technical conditions of production, the forces of demand, the reactions of those factors that are variable in supply in response to return, the margin of production and the price of a product together reach equilibrium, each element in the situation being "in part governed by the others."¹ Rent emerges only from the marginal conjunction so established. Price, which *must* cover the returns required by those units of capital and labour working with the least favourable complement of land, affords something more to those units of capital and labour working with a more favourable complement of land. To the producer during any given treaty with himself or another as landlord, this excess in respect of intramarginal units of produce represents a surplus which, under competitive conditions, he retains or transfers, respectively, in the name of Rent. To society, indifferent to the sharing between landlord and tenant of the price it must in any case pay for a given amount of produce, the excess also represents Rent, a harvest, garnered by him who can, *dependent* upon (and not mutually *interdependent* with) price-determining costs. To argue the latter—*pace* Professor Ogilvie, who incidentally does

¹ *Principles*, p. 427.

not indicate how one could proceed to do so—would be circular reasoning not of the right, but of the wrong type.

(iii) May the increased rent of land taken over (in response to an increase in demand) for a particular crop, say wheat, from a particular crop, say oats, be described as "entering into" the price of oats? Not in any final sense, says Marshall. Yes, says Professor Ogilvie along with "the ordinary man," to whom—as Marshall recognises—it would so appear. Professor Ogilvie draws an analogy with labour, similarly transferred, noticing the higher wages labour would obtain, the scarcity of labour for oat-growing, the change indicated in the marginal expenses of growing oats, and their alteration in price. Marshall, as I understand him, would have no objection to the analogy so far. It is permissible, if not desirable, to say that rent—like wages—enters *proximately* into the cost of production of oats in the given conditions.¹ But further penetration, he argues, reveals that the new level of rent is ultimately an effect of the increased aggregate demand for a *fixed supply* of land for all uses,² whereas the new level of wages is not only the effect of the increased aggregate demand for an existing supply of labour for all uses, but also an active force leading to an *alteration in the supply* of labour as a whole, which in turn reacts upon the level of wages. This last double consequence, peculiar to labour as distinct from land, Professor Ogilvie entirely ignores. It supplies conclusive reason why wages should be considered an ultimately "operative cause" of a rise in the price of oats in the given conditions, whereas rent should not.³

Professor Ogilvie raises a further difficulty in the present connection. He objects that Marshall, discussing rent with Jevons, "for the purposes of a particular argument," without

¹ *Principles*, p. 439, footnote. Or, according to Edgeworth, to say "rent does enter into the cost of production" may be appropriate for certain purposes, in particular to indicate the parties who are sufferers. . . . (*Papers*, Vol. II, p. 172). This is why Marshall admits that it may be "inexpedient" to say it does not, although it is "false" to say it does in any finally causal sense (*Principles*, pp. 436-7, footnote).

² Compare the example of the meteoric stones (*Principles*, p. 418 bottom and 419 top).

³ Schumpeter's dictum is pertinent :—"Different propositions are true from different distances and on different planes of argument. So, e.g., for a certain way of describing historic processes, the presence of a military commander of Napoleonic ability may truly be said to be of causal importance, whilst for a survey farther removed from details it may have hardly any importance at all" (*Economic Journal*, September 1928, p. 376, footnote). Most of Professor Ogilvie's apparent confusion seems to spring from overlooking this general truth.

explaining what the particular argument may be, includes the rent yielded by a piece of land currently laid down in wheat in the "whole expenses" of production, thus using expenses in a sense opposed to that in which he uses it in the *Principles* (p. 9). The difficulty clearly disappears when it is recognised that the rent to be obtained from a piece of land is, in Marshall's teaching, a cost (expense) to the individual producer on the point of hiring it or not, or of using it in one way instead of another.¹ The particular argument implied by Marshall is surely the case of a particular piece of land in respect of which a particular cultivator is exercising his option whether to lay it down in oats or in wheat.

Professor Ogilvie raises a final difficulty, relating to Marshall's discussion of the industrial as distinct from the agricultural value of land. He asks why if price just covers capital and labour costs on the "top storey,"² leaving no surplus for rent, should it not, by parallel argument, just cover rent on the "bottom floor" and leave no surplus for wages or interest? The reason, quite simply, is that in the former case—price being wholly absorbed by the cost of the given capital and labour—production nevertheless will be carried to the given point; whereas in the latter case—price being wholly absorbed by the given rent—no production will take place. Logic is not logic which destroys the facts upon which it depends.

3. *Improvements*

It is startling to find Professor Ogilvie questioning Marshall's observation that, in discussing how far the fertility of any soil is due to original properties and how far to man-made changes, account must be taken of the kind of produce raised from it; questioning this statement, moreover, on the general ground that the "fullest discussions of the origins of a thing should not admit any discussion of its many possible destinations" (p. 10). As if fertility were a "thing in itself"! What of the fertility of land in Scotland for growing grapes as compared with growing heather? Will the contribution of Nature in the former case be anything like its contribution in the latter? Marshall's hierarchy—forest trees, grass, cereals, vegetables—reflects the increasing part necessarily contributed by cultivation as compared with that

¹ Cf. section 2 (a).

² Is it necessary that economists should come to an agreement, as Professor Ogilvie seems to think they should, and decide between "top storeys" and any marginal unit of produce as the point of regard in estimating expenses of production? Is the former not a conveniently clear illustration of a particular case (actual or hypothetical) of the latter?

contributed by Nature to obtain these different types of produce *from any given land*. The fact that Professor Ogilvie mentions, namely, that forest trees are (often ?) found on soils which without man's aid would not have been in existence at all, is immaterial. What is material is that from those same soils vegetables could be grown only by applying to them still further efforts of cultivation, the cost of which the price of the produce must cover if these soils are to be diverted to the latter use.

As regards the annual value of the land, moreover, if vegetables are in fact produced, the part that represents true rent is likely thus to be smaller than it would be if forest trees were grown. The part that represents true interest, furthermore, will not include any return to investment which may have improved the land for growing trees but did not likewise improve it for growing vegetables. In short, the annual value (hence also the capitalised value) of any piece of land, both in so far as it represents rent and in so far as it represents interest, depends upon the use to which the land is put.

Professor Ogilvie next argues that Marshall, in his attempt to show that the present value of improved land generally exceeds the expenses of improvement where properly computed net, is in error in debiting against the expenses of an improvement the aggregate value of the extra produce *from first to last* attributable to it. Witness the Bedford Level, the net expenses of which must on this computation be some negative sum ! (p. 12). But must they ? Can anyone say with assurance what part of the aggregate value of the extra produce since the seventeenth century is *specifically attributable* to the drainage system in question, and what part to growth of population and other social forces which by common consent are not in dispute as important factors in determining the value of such improved land ? The expenses of the improvement, moreover, include continually new expenses, *e.g.* those of bringing the system up to date, so that it is against this enlarged total of expenses, not against any original investment only, that the aggregate value of the extra produce historically yielded must be set. Let us, however, admit that the net expenses of the Bedford Level could be shown to be negative. This still would not argue Marshall wrong. For in the paragraph of his in question ¹ he is speaking of improved land in a district, a district being *any district in general*. He would be the first to allow that the Bedford Level might have more than paid its way, if at the same time it be allowed that some other improvement

¹ *Principles*, p. 634.

elsewhere, *e.g.* the Middle Level, had less than paid its way.¹ Marshall's argument, to the effect that the actual return to improvements probably does not exceed the level of return necessary and sufficient to cover the expense of improvement, depends upon "taking successful and unsuccessful returns together."² The value of the improved land of the Bedford Level may be especially high; that of land adjacent to the Middle Level aqueduct is probably especially low.

Now what of this last argument, that the whole of the extra income derived from improvements is required as a *rule*, even in an old country, to remunerate the individual owner for his efforts and sacrifices? In what sense is *the whole* required to remunerate the individual owner? It must—to quote Marshall—"afford adequate (and no more than adequate) *motive* to such investment."³ That is, the sum of the returns through time must be such on the average for a particular type of investment that, when discounted for their futurity, uncertainty, etc. in the individual's contemplation, they promise him sufficient compensation to overcome his psychological resistance to waiting and risk-bearing. Suppose the return may legitimately be expected to continue in perpetuity, although this will, in *fact*, seldom happen. In the investor's calculation the income to accrue beyond his lifetime, still more that to accrue beyond his children's lifetime, will have but small present value as an inducement to invest. "The whole" of the future return, nevertheless, will be necessary to provide him with adequate motive to lay out his capital; but only in the sense that it is necessary to make up a given estimated discounted value at the time of investment. The value of land at later dates is a function of the return to the efforts and sacrifices of investment only in this sense. Marshall's suggestion that the analysis might be carried back to the earliest origins of land in old countries, though it might raise controversial questions of history and ethics, does not mean, as Professor Ogilvie seems to think, that the "blood and tears of a Roman slave would be relevant" to the value of land *to-day*. Clearly, in fact, any yield attributable to those efforts has long since ceased. And in principle Marshall's argument only amounts to saying that at any point in past time the returns over the period during which

¹ "The Middle Level main drain is crossed by an aqueduct. . . . The aqueduct has to be maintained almost entirely for navigation purposes, and although the navigation is at present quite inconsiderable, and therefore run at a big loss, the existence of the aqueduct subjects thousands of acres of land to the risk of flood" (*Rept. of the Royal Commission on Land Drainage*, p. 38).

² *Principles*, p. 426.

³ *Ibid.*, p. 426. *Italics mine.*

they had accrued probably were not more on the average than were necessary, on a basis of discounted expectation, to lead to the given investment of effort.¹ Marshall did not believe in the "lasting" (in the sense of "*ever-lasting*") importance of efforts and sacrifices applied to land. It is accordingly curious to find Professor Ogilvie, quoting Walker, arguing that the principle of terminable annuities is applicable as regards the improvements made by a tenant farmer, as if it were a principle not contemplated by Marshall. It is curious that he does not "force this belief together" with the case of the landlord who—not on a limited tenure—can look forward to what is to him an indefinitely long series of returns coincident with the total yield of the improvement, benefiting his children, perhaps his children's children, and so on; to whom, therefore, the principle of permanent annuities appeals, later income being very heavily discounted. The practical economic difference will be that the average tenant will not find it worth while to push investment in improvements to land as far as the average landlord in similar circumstances would carry it.

4. *Quasi-rent*

Quasi-rent as a surplus of total receipts over prime cost in short periods. Professor Ogilvie objects to quasi-rent, so conceived, on the same ground that he objects to Marshall's conception of rent in relation to costs. The argument stated above in Section 2 (b) (i), therefore provides a sufficient answer. It is to be observed, however, that the parallel between quasi-rent and rent holds only for short periods.² In long periods durable plant, unlike land, has a supply-price. This leads us to the paradox which Professor Ogilvie evolves (pp. 119-20) as a further ground of objection:—Marshall, he claims, though describing the short-period return to durable plant as a surplus, at the same time treats the aggregate of incomes from it during its life as necessary profit to maintain supply, that is, as true costs. Now Marshall explicitly states that such incomes are "no part of cost under any conditions,"³ either from the individual or social point of view. Professor Ogilvie mentions, only to pass over, the sense in which Marshall held the profit to be "necessary," namely, as giving rise to *expectation* which affects supply through

¹ "If poorer returns had been expected than those on which people actually based their calculations, fewer improvements would have been made" (*Principles*, p. 426).

² *Economics of Industry*, p. 427.

Principles, p. 424, footnote.

new investment when that becomes practicable. Anticipated return to new investment in the long run, and actual return accruing to existing plant in the short run, are hardly identical! The former, realised as interest, effectively operates upon supply, cost of production, and price; the latter, quasi-rent, is impotent in these respects—mere evidence upon which reasonable expectation may be based. The point is made in more detail in the argument relating to improvements above, the improvements in present question having a limited life.

Quasi-rent as a function of the degree of maladjustment of supply and demand. Marshall, I believe, would have been surprised to find himself the author of this view of quasi-rent as Professor Ogilvie sets it out.

First as to the alleged contradiction that Marshall holds maladjustment to belong peculiarly both to short and to long periods (p. 16). What do these terms mean with reference to the present problem? For the theory of value in relation to cost—one context in question—the terms carry the technical significance, respectively, of periods within which it is not, and within which it is, physically possible for the supply of appliances of production in general to be brought into active mutually balancing relations with the demand for them in such wise that the supply and demand for final products will be brought into similar relation. In a dynamic society such as ours new disturbances are, in fact, ever arising before any particular balance is achieved. But each new equilibrium is more effectively approached at a longer rather than a shorter interval of time from each new disturbance. It would, moreover, endure indefinitely if outside forces did not disturb it anew. Passive maladjustment is therefore associated with short periods; active adjustment with long periods.

Does Marshall reverse this thesis in the second context in question, namely, where he contrasts old investments in appliances, and compares new investments in appliances, with investment in materials and labour that is soon and often repeated—contrast shading into comparison the younger any given investment in appliances? Surely not.

He does not, in fact, use the terms short and long period in the present connection. His argument, as I understand it, is this. New investment in appliances is the process whereby their supply is in due course brought into mutually determining equilibrium relation with demand. This state of affairs, therefore, is akin to that which exists continuously, even in a dynamic society, in respect of the supply of and demand for materials and labour.

For it is reasonable to presume that the process of investment in these forms of resources is not, under competitive conditions, prevented by physical or other difficulties from maintaining a continuously active equilibrium. Professor Ogilvie mistakes this constantly effective activity of adjustment for a short-period phenomenon instead of recognising it as the long-period phenomenon it is.¹ The contradiction of which he accuses Marshall disappears in the light of such recognition.

In what way, then, do old investments in appliances present a contrast? They represent for the time being a definite commitment, likely in a dynamic society to be inappropriate in scale, and having in any society no direct part in the process of relating supply and demand. The distinction between such old investments and investments newly effected, or taking place, is clear, even if, as Marshall maintains, it is not absolutely clear-cut. For investments vary in age, and the returns to those that are more recent bear more potently upon expectation, which in turn, through the rate of interest, governs the investment of free capital.² Capital in process of investment in appliances is thus a limiting case. As the means whereby an ultimate balancing of the supply of and demand for appliances is approached, it corresponds with investment in materials and labour continuously balancing the supply of and demand for these resources respectively.

Maladjustment thus characterises the supply of durable appliances for short periods from each point of disturbance in a dynamic society. Quasi-rent, the short-period income from such

¹ Clearly Marshall would not have described as a short-period phenomenon this continuously active equilibrium which perpetuates itself indefinitely. Professor Ogilvie cites (p. 16) Marshall's quotation of Devas' words, "the longer the run, the more hopeless the rectification," as bearing upon his (Marshall's) view of the matter. Unfortunately for Professor Ogilvie's case, Marshall, in fact, introduces the quotation as follows: "An answer may be given to the objection that 'the longer the run. . . etc.' " (*Principles*, p. 379, footnote).

² Marshall's argument that the causes that govern the value of free capital are akin to those which govern interest, whereas those that govern the value of fixed capital are akin to those which govern rent, because the value of free capital and its anticipated income may be directly represented as a ratio, whereas the value of fixed capital may be ascertained only by capitalising the net income it yields, does not depend—as Professor Ogilvie suggests (p. 16)—on using a "particular method of ascertainment of these values respectively." Marshall's conclusion follows because its anticipated income does, in fact, reflect the cost (supply price) of free capital, whereas the net income from fixed capital does not, in fact, reflect the cost of that capital, but gives that capital a value independent of its cost in the same way that the rent of land gives land a value independent of any cost. The particular method of ascertainment of the value of the capital in each case depends upon the way that value is in each case, in fact, determined.

appliances,¹ is, therefore, in a dynamic society necessarily associated with maladjustment. But although this is so *in fact* in the economic world of our experience, in which maladjustment is perpetually arising, *in principle* quasi-rent in respect of any standing investment in appliances would not, on Marshall's analysis, vanish in a stationary state in which the supply of and demand for appliances in general would always be kept in mutual balance by an appropriate rate of new investment. For, although the income from existing appliances would correspond in *magnitude* with the interest to be obtained on new investment, it would still—from the point of view of society and the investor alike—not correspond in *character*.² It would still differ from the latter in being ineffective with regard to supply, and thus could not be held to be in the nature of a cost.

A word remains to be said as to the sense in which all practical cases of quasi-rent depend upon the degree of maladjustment between supply and demand. Professor Ogilvie cites Marshall's statement in the classic instance of the meteoric stones, to the effect that if the divergence from cost of the short-period income they yield is likely to be *great*, that income is "more nearly akin to a rent than to interest on the cost of producing the stones" (p. 17). He infers from it "much maladjustment, quasi-rent; little maladjustment, quasi-interest"—in short, that Marshall "calls incomes by different names because the maladjustments effecting them differ in magnitude." But is Marshall thus at fault? The implications of the statement seem to me to be these. Amongst incomes that are associated with conditions of maladjustment, those that represent greater divergence from cost are apt to endure longer, since it will, in fact, take longer in such cases before an active balance between return and cost can supersede the passive relation of return to cost. These more divergent

¹ Under present-day conditions, of course, the supply of materials and labour is not adaptable at will. But, as Marshall himself argued, both materials and labour, if their supply became difficult to adjust, would be in the same category as durable appliances—earning short-period returns in the nature of quasi-rent on already existing investment of capital or effort, and long-period returns, interest or wages as the case might be, on new investment of the given kinds.

² Professor Cannan puts the position clearly. "I know of no example in which Marshall applies the term (quasi-rent) to an income which is neither above nor below but coincident with normal profits; but there is nothing surprising in this: in such a case he regards the conception of quasi-rents as of no importance. And the case seems amply covered by the very definite statement—'In every case the net income derived from the investment of capital, when once that investment has been made, is a quasi-rent'" (*Review of Economic Theory*, p. 324 foll.).

incomes, therefore, in respect of their greater endurance as compared with less divergent incomes, more nearly resemble true rent which endures indefinitely. All the short-period incomes in question are alike quasi-rents : Marshall says here only that some are more, some are less, like true rent in regard to the time they last.

Readers of Marshall, who are puzzled by his sometimes ambiguous and often elusive statements about rent, will be grateful for Professor Ogilvie's spirited and stimulating attack. But I hope that these comments may have helped to show that the different parts of the doctrine are mutually consistent, and consistent with the rest of the theory of value and distribution ; that the whole of the doctrine is sound in its essentials.

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July 1930.

THE STATISTICAL DERIVATION OF DEMAND CURVES

1. For the purpose of this study demand curves are conceived as stating the quantities of a commodity that a market will buy during a short interval, say a year, in response to different average prices proper to the interval. We thus tacitly assume that variations of price *within* the interval have no significant effect and that, for practical purposes, the average price proper to the whole interval may be regarded as if it were also the actual price proper to each part of it. Provided that our intervals are made reasonably short, no serious error is likely to result from this simplification.

2. In the preceding paragraph the phrase, the price "proper to" a given interval must be understood in a special sense. It sometimes happens that the prices recorded for, say, a particular week are not the prices at which the things that have changed hands in that week, and so come into the record of quantities, have actually been sold. The bulk of the money has changed hands as a result of contracts made some time ago at prices ruling then or at "future" prices anticipated then. When this happens there is no direct connection between the price recorded for the week and the quantity of sales recorded for it. For constructing demand schedules there ought to be set against the quantity the price at which the items included in it were, in fact, sold. It is this, and not the contemporaneous recorded price, that constitutes the price "proper to" any given interval. Detailed knowledge of the arrangements under which particular commodities are marketed is needed to reveal this price; and when, in lack of such knowledge, contemporaneous recorded prices are used, error may result. The risk of this is obviously greatest when price-quantity records over a succession of very short intervals—*e.g.* daily or weekly intervals—are employed. Provided, however, that our intervals are made reasonably long, *e.g.* if annual averages of quantities and prices are used, it may be hoped that, for most ordinary commodities, errors due to this cause will not be large. In what follows it is assumed that we are concerned with commodities in which the recorded prices for our intervals may be regarded as the prices proper to them, or, failing that, that detailed inquiry has enabled us to substitute the "proper" for the recorded prices.

3. The definition given in the first sentence of this article makes the demand curve relevant to any interval connect prices and quantities in that interval without reference to anything outside it. Thus we must not say that the demand curve at any time is one thing from the standpoint of a short period and another thing from the standpoint of a longer period. If the price P_1 of a first interval has fallen in a second interval to P_2 , and has been held at that level in the third interval also, and if, as a consequence of the price situation, the quantity purchased is greater in the third interval than in the second, this fact must be expressed by saying that the low price in the second interval has reacted to make the demand curve in the third interval higher than it would otherwise have been. In every interval there is a single definite demand curve, no matter by what process it has become what it in fact is.¹

4. One further preliminary point must be made clear. When it is said that there is, in respect of any commodity, a single definite demand curve for each interval, this must not be taken to imply that the quantity demanded is a function of the price of that commodity and of nothing else whatever. It may also be a function of the *conditions of supply* of several other things. But, in respect of each interval, these conditions are presumed to be constant. More commodiously, if t be the distance of any interval from some basal moment, we write, ignoring the fact that our intervals are in practice of finite duration, $x_t = \phi(p, t)$. In respect of a given interval t has some constant value, say T ; and, when this is given, all the other conditions relevant to the quantity demanded, except only the price of our commodity, are conceived as frozen solid. So interpreted, the statement that there is, in respect of our commodity, a single definite demand curve in respect of each interval is true, no matter how many substitutes and so on there may be for it.

5. The nature of our demand curves being thus understood, it is evident that the whole of what statistical studies can accomplish directly is to give us a single price-quantity relation in respect of each interval; that is to say, a single point on the demand curve appropriate to each interval. The data by themselves yield this

¹ It should be noticed that, if a definition of this type is employed in dealing with problems of tax incidence, the fact that the position of the demand curve in one interval may be affected by the price that ruled in a prior interval makes it necessary to use a more complex formula for determining the relation between taxes and resultant price changes than would have been necessary had our demand curve stated the relation between prices and quantities when a sufficient time is allowed to admit of their being fully adjusted to one another.

and nothing else whatever. It is, therefore, impossible to derive the demand curve as a whole or any part of the demand curve (save the single given point) in respect of any interval unless we marry to the statistical data some hypothesis or hypotheses external to them and derived from elsewhere. The purpose of this paper is to study certain hypotheses between which and the data marriage may be expected to be fruitful.

6. Before the main problem is attacked it will be well to make clear what is meant by the derivation of a demand curve from statistics in an ideally simple case where none of the complications of real life is present. Suppose, *per impossibile*, that we have, not one price and quantity, but a number of different prices and quantities all relating to the same interval; or, what comes to the same thing, suppose it to be known *a priori* that the demand curves of all our intervals are exactly alike, so that our price-quantity data refer to the same demand curve, and all the points of which they are co-ordinates lie on this curve. Even now the data by themselves do not enable us to derive the curve; for we have no evidence about the part of it that lies beyond or between the observed points; and there are an infinite number of ways in which a line can be drawn joining any two points.¹ We, therefore, need some hypothesis which will enable us to infer unknown points from known ones. Nobody seriously contends that any plausible hypothesis is available for purposes of extrapolation: that is, for making inferences about the part of the demand curve which lies at any substantial distance beyond the region over which observations are available. But over the region in which our observations lie there is a plausible hypothesis available. This is that the rate at which the ratio $\frac{\text{price}}{\text{quantity}}$ changes is not likely itself to change by sudden jumps; in other words, that the demand curve, when drawn out in a figure, is likely to have a smooth and not a kinky appearance. This implies, further, that the part of the curve joining any two points that are very close together will not differ appreciably from a straight line. On this basis what we have to do is to draw a free-hand line between all the known points in such a way as to make it as smooth and as little jerky as possible. The result should

¹ It is this fact which Professor Schultz has in mind when he writes: "In order to derive an unequivocal coefficient of elasticity, we must first derive the equation to the demand curve" (*Statistical Laws of Supply and Demand*, p. 14); that is to say, we cannot derive the elasticity at any point from our knowledge of that point and of other points at however small a finite distance from it until we know the course of the curve between the points.

be an approximation to the actual demand curve. If we are given a great many points fairly close together, all plausible drawings of the curve will be very much alike. But, if there are any substantial gaps in the range of observations, alternative curves differing appreciably from one another may fit the facts almost equally well. We are then only entitled to say that the actual demand curve over the range of observations lies somewhere between specified limits. In the former case, to put the matter otherwise, our inferred demand function is subject to a small, in the latter to a large probable error.

7. In real life there is, in general, no warrant for the hypothesis that the demand curves in the different intervals for which data are available are all exactly alike. Such a state of things is obviously very improbable *a priori*. Moreover, if, with respect to any ordinary set of data, we tentatively postulate it and proceed to construct the demand curve proper to it, the nature of the results will often show *a posteriori* that the hypothesis is not appropriate. This will be so if, as may well happen, no curves except such as contain violent twists and turns can be made to pass through all the observed points. In short, in all ordinary cases in real life the demand curves in our different intervals must be presumed to be different. While retaining the hypothesis that the demand curve for each interval is smooth and not kinky, we require then, if our statistical data are to yield any result, some new hypothesis or hypotheses in place of the hypothesis that the curves for all the intervals are exactly alike.

8. The simplest hypothesis which, when it fits the facts, completely serves our purpose is that the differences between the demand curves in different intervals are all of a sort that can be definitely known and calculated. Thus, if between two given intervals population alters in a defined proportion, while real income per head remains unaltered and monetary arrangements are such that money income per head is also unaltered, and if nothing else whatever relevant to the demand curve for our commodity takes place, the demand curve in the second interval must lie throughout its course at one (the same) horizontal distance from the demand curve in the first interval, and this distance must be such that the quantity associated with any given price in the second interval is equal to the quantity so associated in the first interval multiplied by the fraction $\frac{\text{population in the second interval}}{\text{population in the first interval}}$. Thus, if that fraction be m and if x'_1 and x'_2 be the quantities in the demand curves proper to any two intervals that are

associated with any price p , then $x'_2 = mx'_1$. Let p_1, p_2 and so on be the prices and x_1, x_2 and so on the quantities actually observed for the successive intervals. It follows that, from the quantity observed in the second interval in association with the price p_2 , we can *infer* the quantity that would be associated with the price p_2 in the demand curve of the first interval; and similarly for the prices p_3, p_4 and so on. The demand curve for that interval can then be derived in the manner described in the preceding section; and, when this has been done, the demand curve for any r th interval can also be derived by multiplying the quantity associated with each price in the demand curve of the first interval by the fraction $\frac{\text{population in the } r\text{th interval}}{\text{population in the first interval}}$. It is easy to see that, if population and real income per head remain stationary, but the general level of prices is altered through currency movements, an exactly analogous method of derivation is available. The price in any r th interval being p_r and the quantity x_r , the price on the demand curve of the first interval associated with a quantity x_r must be p_r multiplied by the fraction $\frac{\text{general price index in the first interval}}{\text{general price index in the } r\text{th interval}}$. Thus the demand curve for the first interval can be derived: and in like manner the demand curve for any other interval. This derivation, it should be noted, is only satisfactory when conditions are such that no important changes in the general price index are taking place otherwise than in consequence of currency changes. Subject to this condition, it is further easy to see that, when both the above causes of change are at work, the two preceding methods of derivation can be combined. It may be added, as a point of interest, that, when the population factor alone is in play, the elasticity of demand must be the same in the demand curves for all the intervals *in respect of any assigned price*: when the currency factor alone is in play, the elasticity must be the same in all of them *in respect to any assigned quantity*: when both factors are in play, neither of these propositions is true.

9. In real life it is very improbable *a priori* that the demand curves in a number of different intervals (of appreciable length) for a commodity taken at random will differ from one another solely on account of causes whose effects can be calculated from facts external to the commodity in the manner described in the preceding section. Nor have we to do here with a mere vague general improbability. We know for a fact that many causes quite different in type from those so far described are frequently at

work. First, in respect of commodities of a kind for which people can, if they will, postpone or antedate their purchases—and this is true in some degree of most commodities—the demand curve of one interval may differ from that of another because in the one interval people's expectations about what is going to happen to prices and production in the future is different from what it is in the other. If, for example, they think that a duty will probably be put on motor-cars, this will stimulate them to buy now; if they think that a duty will probably be taken off, that will stimulate them to hold their hand. This, of course, applies not only to dealers, but sometimes to ultimate consumers as well. Secondly, in respect of commodities that are rivals or complements to other commodities, the demand curve of our commodity may be different in different intervals because the supply conditions of the rivals or complements are different in the two intervals. Thirdly, productive technique in general, and therewith real income per head, may alter. Since, when a man becomes better off he does not simply increase his purchases of all things in equal proportion, this implies that his demand curve for most particular things in terms of things in general is altered. With the currency so adjusted as to keep the general level of prices unchanged, this means that the demand curve as expressed in money for most particular things is altered correspondingly. The kind and degree of alteration that takes place will be different for different commodities and cannot possibly be determined *a priori*. Fourthly, the distribution of purchasing power may change in a progressive manner in favour of the poorer as against the richer classes. This must imply a relative constriction in the demand for expensive luxuries and a relative expansion in that for mass-comforts. Fifthly, people's tastes may alter. Professor Schultz, for instance, believes that there has been for a long period a growing taste for sugar in the United States. Obviously this implies a series of divergencies between the demand curves of successive intervals of a sort that cannot be calculated *a priori*. Lastly, tastes remaining unaltered, the distribution of purchasing power may be changed in ways that favour or injure groups among whom the taste for our commodity is especially keen. The demand curves will be affected by this sort of change in the same manner as they are by alterations in tastes. In view of these facts it is obvious that the method of deriving demand curves described in the preceding section is not adequate to the conditions of real life. If confirmation of this conclusion is needed, we have only to apply the hypotheses of that section to a few sets of statistics. The resultant demand

curves will be found to embody twists and turns so violent as to leave no doubt that these hypotheses are not applicable.

10. In recent years a number of writers, recognising these facts, have attacked our problem. Professor Moore, Dr. Schultz, Professors Warren and Pearson and Dr. Leontief have made notable contributions on these lines. I do not propose here—nor indeed am I qualified—to examine in detail this important pioneer work. A little must be said, however, about some of the methods employed. In his *Statistical Laws of Demand and Supply* Dr. Schultz, examining more particularly sugar statistics, employs two methods which he names respectively the method of link relatives and the method of trend ratios. The method of link relatives may be set out thus. The link relative of consumption for any year is obtained by dividing the consumption of that year by the consumption of the preceding year; and the link relative of price is obtained in the same way. Points are then set in a system of rectangular co-ordinates, the co-ordinates of each point being the link relative of price and the link relative of consumption for the relevant year. A straight line is then fitted to these points on the assumption that the reason why any points fail to fall on the line is that they are subject to vertical and horizontal errors, the two sorts being of equal importance. The equation of the line so obtained is the law of demand in terms of link relatives. From this the law of demand for any given year in absolute quantities—*i.e.* the demand curve—is readily derived by a simple substitution.¹ The method of trend ratios proceeds on the same lines, save that here the fundamental data are the ratios of consumption and prices in each year to their respective trends. This method has the disadvantage that, if the movements of consumption and of prices are both perfectly smooth, being brought about, for example, by a steady improvement in technique in the face of constant conditions of demand, it will necessarily fail: a paradox from which the rival method is free. It is plain that both these methods require for their justification the assumption that the demand curves may be treated without serious error as straight lines and that their movements conform to certain conditions. It is not, however, easy to make explicit precisely what these conditions are. A mathematical machine is grinding out results; but the *exact* nature of what was put into the machine at the beginning is,

¹ *Statistical Laws of Demand*, p. 41. I am not clear as to the relation which Dr. Schultz conceives to hold between this demand curve and what he calls the "static" demand curve of Marshall's analysis. He cautions the reader against regarding the two as equivalent (p. 94); but in his discussion of taxation in Part III of his book he himself appears so to regard them.

at all events to non-expert readers, somewhat obscure. This is true in a still higher degree of the more complicated method of deriving demand curves employed in his interesting article in the *Weltwirtschaftliches Archiv* of July 1929 by Dr. Wassily Leontief. A more serious difficulty is that, while the objective sought by these writers in respect of any interval—year or month—is avowedly the *most probable* demand curve, not the actual demand curve, no explicit calculation is made of the probable error to which the results attained are subject. We are not told, nor, I think, can we easily ascertain, within what limits the actual demand curve is more likely than not to lie. This is a very important matter, because some sort of data must obviously allow of a more reliable conclusion being drawn than is possible with other sorts. Without venturing on further criticism, I desire here to suggest a method more tentative and less mechanical in character than those which I have been describing, in which the assumptions made are precisely stated and a rough judgment about the reliability of results is easily reached.

11. The basis of this method is an elementary proposition in geometry. Suppose that we are given three points with co-ordinates (p_1, x_1) , (p_2, x_2) , (p_3, x_3) ; and that three parallel straight lines equidistant from one another vertically (which implies also horizontally) have to be drawn to pass through these points.

Write

$$d_1 = p_1 - p_2$$

$$d_2 = p_2 - p_3$$

$$c_1 = x_1 - x_2$$

$$c_2 = x_2 - x_3.$$

Write also a_1 and a_2 for the vertical distance of the first line above the second and of the second line above the third. Then the slope of the lines

$$= \pm \frac{d_1 - a_1}{c_1} = \pm \frac{d_2 - a_2}{c_2}.$$

This is obviously equal to

$$\pm \frac{(d_1 - a_1) - (d_2 - a_2)}{c_1 - c_2} = \pm \frac{(d_1 - d_2) - (a_1 - a_2)}{c_1 - c_2}.$$

Thus two triads of lines can be drawn through our three points, the slope of the lines in each triad being equal numerically but of opposite sign. If now we add the requirement that the lines passing through the three points must be inclined negatively, only one triad is possible, namely, that one of the aforesaid two

whose slope is negative, that is to say, the one whose slope is

$$-\frac{(d_1 - d_2) - (a_1 - a_2)}{c_1 - c_2}.$$

When $a_1 - a_2 = 0$ this reduces to $-\frac{d_1 - d_2}{c_1 - c_2}$, no matter what the value of the a s may be. In these conditions, then, the slope of all the lines in the triad equals $-\frac{d_1 - d_2}{c_1 - c_2}$. When $(a_1 - a_2)$ is positive, the slope is numerically $< -\frac{d_1 - d_2}{c_1 - c_2}$. When $(a_1 - a_2)$ is negative, the slope is numerically $> -\frac{d_1 - d_2}{c_1 - c_2}$. That is to say, when the curve proper to the third interval is further to the left of, or less to the right of, that proper to the second interval than that proper to the second interval is of that proper to the first, the formula $-\frac{d_1 - d_2}{c_1 - c_2}$ under-states the numerical value of the slope of the curves: in the converse case it over-states it.

12. Now it is obvious that this piece of geometry can have no relevance to the problem of deriving demand curves unless we are entitled to assume that these demand curves, over the range covered by our observations, either are, or are related in a definite manner to, straight lines. It does not seem likely that many demand curves actually *are* straight lines; for this implies that the change of $ld.$ in price per unit is associated with the same absolute change in quantity purchased whether the price we start from is six pounds or six pennies. It is much more plausible to hold that an equal (small) percentage change in price is associated with the same percentage change in quantity purchased whatever (over the relevant range) is the initial price. In other words, it is much more plausible to hold that our curves (over the relevant range) are constant-elasticity curves than that they are straight lines. Indeed it is *a priori* probable that over small ranges demand curves do, in fact, usually approximate to constant elasticity curves. Now it so happens that the constant elasticity curve, though, of course, it is not a straight line, is related in a precise and definite manner to a straight line. For, if price be written p and quantity purchased x , the elasticity of demand in respect of a purchase x may be written $\frac{d \log x}{d \log p}$. Hence if this elasticity is constant, a curve drawn with the logarithms of quantities purchased as abscissæ and the logarithms of prices as ordinates will

be a straight line. This fact has been made use of by Dr. Leontief in the article cited in section 10.

13. In order that our piece of geometry may be brought successfully into play, it is necessary, however, not only that the curves in any triad shall be straight lines, but also that (1) they shall be parallel, and (2) that the distance between the first and second and between the second and third shall be equal. The logarithmic lines will be parallel if the elasticities of demand (assumed constant over the relevant range) are the same in each of the three successive intervals. It is not unreasonable to suppose that, with moderately short intervals, this condition will often be approximately satisfied. The condition of equi-distance between the first and second and between the second and third curves will be approximately satisfied if and in so far as the state of demand is changing under the influence of causes that act in a continuous and gradual manner. Strictly, it will be noticed, equal distances between successive curves imply, since our curves are logarithmic, increasing distances between the demand curves in non-logarithmic form from which they are derived. But, with small intervals, the difference between equal percentage and equal absolute distances is very small. Of the causes examined in section 9 some are likely to operate as a general rule in this way; but others, notably shifts in expectation about the relation between the future and the present prices of the commodity directly concerned, are likely to operate sporadically. When causes of the latter type are in play the condition of equi-distance between the first pair and the second pair of lines in our triad is likely to be violently violated.

14. The method of deriving demand curves which I am proposing may now be set out. First make tables, for the successive intervals given in observation, of (1) the logarithms of observed prices and (2) the logarithms of observed quantities. Secondly, writing p_1, p_2 , etc. for the successive prices, and x_1, x_2 , etc. for the successive quantities, calculate

$$\frac{(\log x_1 - \log x_2) - (\log x_2 - \log x_3)}{(\log p_1 - \log p_2) - (\log p_2 - \log p_3)}$$

and place the result against the third interval; calculate

$$\frac{(\log x_2 - \log x_3) - (\log x_3 - \log x_4)}{(\log p_2 - \log p_3) - (\log p_3 - \log p_4)}$$

and place the result against the fourth interval; and so on for all the intervals. When in respect of any interval the figure obtained

in this manner is positive, it cannot measure the elasticity of demand for the relevant triad; a swing in demand must have occurred between the second and third intervals widely different from that which occurred between the first and second. When the figure attained is negative, it *may* measure this elasticity. If the distances between the first and second and between the second and third lines in the triad are equal, it *does* measure it. For example, if all other things, including real income per head, are unchanged over the period covered by any triad, and if population and (or) money income per head change in the same proportion—so that their logarithms changed by the same absolute amount—between the first and second and between the second and third intervals, the figure that emerges is the true elasticity of demand. Nothing would be gained by correcting the original data for population and currency changes before manipulating them. If the demand curve moves less towards the right or more towards the left in the second half than it does in the first half of our triad, the figure that emerges is less than the true elasticity of demand: in the converse case it is greater than the true elasticity of demand. Thus, if, other things being equal, population or money income per head is increasing at a constant absolute rate, which implies a decelerating geometrical rate, our figure will slightly under-estimate the true elasticity of demand; and by employing data corrected for population and general price changes we shall obtain a figure which will be slightly larger and, *pro tanto*, more correct. As a rule, for most triads there is likely to be some disturbance consequent upon discrepant swings of demand as between the two pairs of intervals. We cannot tell *a priori* what degree of disturbance has occurred in respect of any given triad: though, for certain triads, for example those during the course of which an expectation of change in the rate of duty imposed on the commodity concerned has emerged, considerable disturbance may be looked for. When, however, we bring into account all our triads together, useful results may sometimes be obtained. The table of calculations taken as a whole may, indeed, reveal conditions so chaotic that no inference about the form of the demand curve can safely be drawn from it. If, however, the triads yielding negative figures constitute a large proportion of the whole, if the figures obtained in respect of a large number of the triads are grouped together fairly closely, and if there are no indications of a substantial trend of increase or decrease, it is probable that throughout the observed period the form

of the demand curve has been substantially similar and that the elasticity of demand lies within limits that can be specified. In other conditions the table will suggest that alterations of form have taken place about which something definite can be said. It should be noted that, since a given swing in the demand curve shifts the price related to a given quantity—and the quantity related to a given price—by some absolute amount, the resulting proportionate error is likely to be very large when the differences among either the observed prices or the observed quantities in a triad are very small. Hence it will be well to suspect the witness of triads of this kind and to prefer that of triads where both the observed prices and the observed quantities differ substantially among themselves. I suggest then that in tables obtained in the way proposed above all positive figures should be ignored and also negative figures that are seriously suspect on the ground just indicated. On the assumption that the (logarithmic) demand curves of all the intervals are parallel straight lines, the figure in the final column derived from each triad may be regarded as an "observation" of the elasticity of demand, subject to an "error" due to a deviation from equality between the distance of the second line in the triad from the first and the distance of the third line from the second. It is not, however, to be expected that the errors in this type of observation will be distributed in accordance with the normal law. Hence a mechanical treatment of them is not warranted. More particularly, in view of the fact that some of the observations with which we are proposing to work may easily, on account of "error," show a very large (negative) elasticity, while none can show an elasticity numerically less than 0, no especial significance can be attached to the arithmetic average of their observations. The following procedure is probably as little unsatisfactory as any other. Find the limits within which half of the unrejected observations lie. If the whole table shows a reasonably narrow range of scatter, and if the proportion of observations which has had to be extruded is small, the elasticity of demand may be expected to lie within this limit, and a figure in the neighbourhood of the median is more likely to be right than one far from it. The larger the proportion of positive figures in the original table and the wider the scatter, the less confidence are we entitled to place in our results.

15. It remains to illustrate the above method in practical working. For this purpose I shall apply the method first to two sets of figures collected by Dr. Schultz. My object being merely to illustrate a method, these figures are taken as they stand, and

the question whether the recorded prices are rightly treated as proper prices in the sense of section 2 is not raised. I have taken account of all negative figures and do not employ the further refinement, suggested above, of rejecting the witness of triads yielding such figures that I have called above suspect. Table I is derived from Dr. Schultz's table ¹ giving the total consumption and the money price of sugar in the United States; and Table II

TABLE I

	Col. I. Log. of total consumption (in thousands of short tons) of sugar in the U.S.A.	Col. II. Excess of each year over its suc- cessor, d_r .	Col. III. Log. of New York whole- sale price in cents per lbs.	Col. IV. Excess of each year over its suc- cessor, c_r .	Col. V. Elasticity of demand, i.e., $d_r - \frac{d_{r+1}}{c_r - c_{r+1}}$.
1890	3.21854		0.79036		
1891	3.32552	-0.10698	0.66661	0.12375	
1892	3.31723	0.00829	0.63809	0.02852	-1.210
1893	3.32960	-0.01237	0.68502	-0.04693	0.273
1894	3.35295	-0.02335	0.61490	0.07012	-0.093
1895	3.33925	0.01370	0.61826	-0.00336	-0.504
1896	3.34143	-0.00218	0.65629	-0.03803	0.458
1897	3.36530	-0.02387	0.65350	0.00279	-0.531
1898	3.35083	0.01447	0.69592	-0.04242	-0.818
1899	3.36680	-0.01597	0.69188	0.00404	-0.655
1900	3.39550	-0.02870	0.72591	-0.03403	0.334
1901	3.42439	-0.02889	0.70329	0.02262	-0.003
1902	3.45849	-0.03410	0.64885	0.05444	-0.163
1903	3.45576	0.00273	0.66633	-0.01748	-0.512
1904	3.49122	-0.03546	0.67870	-0.01237	-1.279
1905	3.46953	0.02169	0.72066	-0.04196	-1.931
1906	3.50623	-0.03670	0.65466	0.06600	-0.540
1907	3.52543	-0.01920	0.66736	-0.01270	-0.222
1908	3.55242	-0.02699	0.69522	-0.02786	0.513
1909	3.56217	-0.00975	0.67806	+0.01716	0.382
1910	3.57426	-0.01209	0.69653	-0.01847	0.064
1911	3.57449	-0.00023	0.72795	-0.03142	-0.915
1912	3.59384	-0.01935	0.70252	0.02543	-0.336
1913	3.62242	-0.02858	0.63124	0.07128	-0.201
1914	3.62449	-0.00207	0.67052	-0.03928	-0.239

from his table ² giving the consumption per head and the real price (i.e. money price corrected by an index of general prices) for the same.

In Table I, Column V contains positive values opposite the years 1893, 1896, 1900, 1908, 1909 and 1910. In every case except that of 1909 the positive value is consequent upon both the price difference and the quantity difference being negative. This suggests that there has been manifest a general tendency towards an accelerated upward movement of the demand curves; and this

¹ *Statistical Laws of Demand and Supply*, p. 213.

² *Ibid.*, p. 214.

suggests in turn that any figures derived on the assumption that the distances between the curves proper to adjacent intervals are constant will exaggerate the elasticity of demand. Of the 17 figures with negative signs in Column V the maximum (numerically) is -1.931 and the minimum $-.003$. The middle figure (median) is $-.512$. More than half the negative figures—the nine middle figures—lie between $-.222$ and $-.655$. The arithmetic average of all the negative figures is $-.600$. The arithmetic average of the negative figures for the years 1890 to 1902 is $-.50$: for the years 1903 to 1914 it is $-.686$.

TABLE II.

	Col. I. Log. of per caput con- sumption in lbs.	Col. II. Excess of each year over its suc- cessor, d_r .	Col. III. Log. of price per lb. cor- rected by general in- dex-number.	Col. IV. Excess of each year over its suc- cessor, c_r .	Col. V. Elasticity of demand <i>i.e.</i> $\frac{d_r - d_{r+1}}{c_r - c_{r+1}}$
1890	1.72263		0.82236		
1891	1.82151	-0.09888	0.70424	0.11812	
1892	1.80482	0.01669	0.70355	0.00069	-0.984
1893	1.80889	-0.00407	0.73190	-0.02835	0.714
1894	1.82413	-0.01524	0.71675	0.01515	-0.256
1895	1.80209	0.02204	0.71357	0.00318	-2.279
1896	1.79588	0.00621	0.77093	-0.05736	0.292
1897	1.81158	-0.01570	0.76827	0.00266	-0.365
1898	1.78888	0.02270	0.79120	-0.02293	-1.891
1899	1.79657	-0.00769	0.75740	0.03380	-0.535
1900	1.81425	-0.01768	0.75793	-0.00053	0.290
1901	1.83696	-0.02271	0.74617	0.01176	-0.409
1902	1.86216	-0.02520	0.66521	0.08096	-0.035
1903	1.85065	0.01151	0.67237	-0.00716	-0.416
1904	1.87679	-0.02614	0.68485	-0.01248	7.077
1905	1.84819	0.02860	0.72681	-0.04196	-1.856
1906	1.88138	-0.03319	0.64562	0.08119	-0.501
1907	1.88930	-0.00792	0.63478	0.01084	-0.359
1908	1.90956	-0.02026	0.68151	-0.04673	0.214
1909	1.91275	-0.00319	0.63195	0.04956	0.177
1910	1.91169	0.00166	0.63286	-0.00091	-0.084
1911	1.89875	0.01294	0.69975	-0.06689	-0.180
1912	1.91009	-0.01134	0.64748	0.05227	-0.119
1913	1.93146	-0.02137	0.57171	0.07577	-0.426
1914	1.92583	0.00563	0.61972	-0.04801	-0.218

In Table II the figure in Column V is positive for 1893, 1896, 1900, 1904, 1908 and 1909. Most of these years are the same as those that give positive figures in Table I. Of the 17 negative figures the maximum (numerically) is -2.279 : the minimum -0.035 . The median is -0.409 . The middle nine figures lie between -0.218 and -0.535 . The arithmetic average of all the negative figures is -0.624 . For the period 1890 to 1902 it is -0.794 : for the period 1903 to 1914 it is -0.473 .

The only notable difference between the results obtained from the uncorrected and those obtained from the corrected

TABLE III.

	Col. I. Log. of quantity of copper consumed in U.S.A.	Col. II. Excess of log. of con- sumption in each month over its suc- cessor = d_r .	Col. III. Log. of price of copper in U.S.A.	Col. IV. Excess of log. of price in each month over its suc- cessor = c_r .	Col. V. Inferred elasticity of demand $= \frac{d_r - d_{r+1}}{c_r - c_{r+1}}$.	Col. VI. Inferred elasticity of demand to 2 decimal points.
Jan. 1909 .	215		143			
Feb. 1909 .	225	-10	112	+31		
March 1909 .	234	-9	93	+19	-1 12	- 0.08
April 1909 .	235	-1	99	-6	-8 25	- 0.32
May 1909 .	239	-4	110	-11	3 5	+ 0.59
June 1909 .	246	-7	121	-11	3 0	+ ∞
July 1909 .	238	+8	110	+11	-15 -22	+ 0.67
Aug. 1909 .	247	-9	114	-4	17 15	+ 1.13
Sept. 1909 .	251	-4	110	+4	-5 -8	+ 0.62
Oct. 1909 .	261	-10	104	+6	6 -2	- 3.00
Nov. 1909 .	265	-4	118	-14	-6 20	- 0.30
Dec. 1909 .	237	+28	124	-6	-32 -8	+ 4
Jan. 1910 .	232	+5	134	-10	23 4	+ 5.75
Feb. 1910 .	262	-30	125	+9	35 -10	- 1.84
March 1910 .	245	-17	123	+2	-13 7	- 1.86
April 1910 .	249	-4	105	+18	-13 -16	+ 0.81
May 1910 .	256	-7	99	+6	3 12	+ 0.25
June 1910 .	284	-28	93	+6	21 0	+ ∞
July 1910 .	239	+45	87	+6	63 0	+ ∞
Aug. 1910 .	272	-33	97	-10	78 16	+ 4.88
Sept. 1910 .	257	+15	93	+4	-48 -14	+ 3.43
Oct. 1910 .	267	-10	99	-6	25 10	+ 2.5
Nov. 1910 .	256	+11	105	-6	-21 0	- ∞
Dec. 1910 .	256	0	100	+5	11 -11	- 1.00
Jan. 1911 .	229	+27	90	+10	-27 -5	+ 5.40
Feb. 1911 .	250	-21	88	+2	48 8	+ 6.00
March 1911 .	281	-31	84	+4	10 -2	- 5.00
April 1911 .	252	+29	80	+4	60 0	+ ∞
May 1911 .	269	-17	70	+1	46 3	+ 15.33
June 1911 .	275	-6	93	-14	-11 15	- 0.73
July 1911 .	215	+60	96	-6	-66 -8	+ 8.25
Aug. 1911 .	264	-49	127	-31	109 25	+ 4.36
Sept. 1911 .	243	+21	86	+41	-70 -72	+ 0.97
Oct. 1911 .	238	+5	86	0	16 41	+ 0.39
Nov. 1911 .	228	+10	101	-15	-5 15	- 0.33

TABLE III—continued.

	Col. I. Log. of quantity of copper consumed in U.S.A.	Col. II. Excess of log. of con- sumption in each month over its suc- cessor = d_r .	Col. III. Log. of price of copper in U.S.A.	Col. IV. Excess of log. of price in each month over its suc- cessor = c_r .	Col. V. Inferred elasticity of demand $\frac{d_r - d_{r+1}}{c_r - c_{r+1}}$.	Col. VI. Inferred elasticity of demand to 2 decimal points.
Dec. 1911 .	255	-27	132	-31	$\frac{37}{16}$	+ 2.31
Jan. 1912 .	242	+13	149	-17	$\frac{-40}{-14}$	+ 2.85
Feb. 1912 .	259	-17	149	0	$\frac{30}{-17}$	- 1.76
March 1912 .	265	-6	167	-18	$\frac{-11}{18}$	- 0.61
April 1912 .	278	-13	197	-30	$\frac{7}{12}$	+ 0.58
May 1912 .	268	+10	205	-8	$\frac{-23}{-22}$	+ 1.04
June 1912 .	267	+1	236	-31	$\frac{9}{23}$	+ 0.39
July 1912 .	302	-35	235	+1	$\frac{36}{-32}$	- 1.12
Aug. 1912 .	328	-26	243	-8	$\frac{-9}{9}$	- 1.00
Sept. 1912 .	326	+2	243	0	$\frac{-28}{-6}$	+ 3.50
Oct. 1912 .	328	-2	238	+5	$\frac{4}{-5}$	- 0.80
Nov. 1912 .	309	+19	239	-1	$\frac{21}{6}$	- 3.50
Dec. 1912 .	322	-13	240	-1	$\frac{32}{0}$	+ ∞
Jan. 1913 .	322	0	217	+23	$\frac{-13}{-24}$	+ 0.54
Feb. 1913 .	327	-5	175	+42	$\frac{5}{-19}$	- 0.26
March 1913 .	300	+27	168	+7	$\frac{-32}{35}$	- 0.91
April 1913 .	311	-11	184	-16	$\frac{38}{23}$	+ 1.60
May 1913 .	316	-5	189	-5	$\frac{-6}{-11}$	+ 0.54
June 1913 .	266	+50	166	+23	$\frac{-55}{-28}$	+ 1.96
July 1913 .	305	-39	152	+14	$\frac{89}{9}$	+ 9.89
Aug. 1913 .	285	-20	188	-36	$\frac{-19}{50}$	- 0.38
Sept. 1913 .	298	-13	213	-25	$\frac{-7}{-11}$	+ 0.64
Oct. 1913 .	309	-11	213	0	$\frac{-2}{-25}$	+ 0.08
Nov. 1913 .	307	+2	181	+32	$\frac{-13}{-32}$	+ 0.41
Dec. 1913 .	308	-1	153	+28	$\frac{8}{4}$	+ 0.75

data is that among the former the larger figures are found in the second half, among the latter in the first half of the table. I should imagine that the explanation of this lies in the manner of construction of the general price index used by Dr. Schultz for correcting his price figures; but it has not seemed worth while to go into the matter. On the whole there is no sufficient ground for holding that the elasticity of demand for sugar has altered materially over the period covered by the statistics; and it seems probable that the reason why different results are obtained from different successive triads is that the demand curves have

shifted unequally as between the two pairs covered by most triads. We are entitled, I think, to conclude with confidence that the elasticity of demand is not less than $-.250$ and not greater than $-.550$. It probably lies somewhere in the neighbourhood of $-.4$. This conclusion may be compared with those reached by Dr. Schultz. He finds an elasticity of demand under normal conditions of consumption of $-.5$: and further that, even when conditions of consumption differ substantially from normal, the coefficient of elasticity is still numerically less than 1.0 .¹

16. Let us next apply my method to the monthly figures for copper sold in the United States over the years 1909-13 which Dr. Leontief has collected.² Here there is serious doubt whether the recorded prices are proper prices in the sense of section 2; but, again, my purpose being illustrative, I do not raise that issue. In Column VI of this table there are 58 figures altogether. Of these, 33 are positive, including five that are infinite. Of the 33 positive figures, 15 result from a union of 2 positive and 18 from a union of two negative elements. There remain only 20 negative figures, including one that is infinite. Of these, apart from the infinite figure, the maximum is $-.50$: the minimum $-.08$. The median is -1.0 or $-.91$. The 10 middle figures out of the 20 lie between $-.38$ and -1.8 . The *prima facie* inference is that the elasticity of the demand for copper probably lies between these limits. But the large proportion of positive figures found in our final column shows that the demand curve oscillates in a very irregular manner. This suggests that the above result must be used with great caution. The figure found by Dr. Leontief by a complicated mathematical process is -1.29 . This result is, in my opinion, subject to a probable error—not specified by Dr. Leontief—which forbids us to assert with any confidence that the elasticity of the demand for copper over the period studied has been numerically greater than unity. It is not at all surprising that greater uncertainty should attach to determinations of the elasticity of demand for articles like copper, for which the demand is likely to fluctuate violently with variations in general industrial activity, than attaches to similar determinations for staple articles of food, for which the demand is much less inconstant. Moreover, with intervals so short as a month, discrepancies between recorded and 'proper' prices are likely to confuse the calculation more seriously than they do with longer intervals. Even, however, with this unpromising material the method I have been illustrating enables us to escape in some degree out of complete nescience.

A. C. PIGOU

¹ *Statistical Laws of Demand and Supply*, p. 92.

² *Weltwirtschaftliches Archiv*, July 1929, pp. 32-33.

THE ARTIFICIAL CONTROL OF RAW MATERIAL SUPPLIES¹

THIS article contains two parts. In the first part the subject is discussed from a general theoretical point of view: in the second, certain recent or existing attempts at artificial control are very briefly considered in the light of the previous discussion.

PART I

Broadly speaking, all attempts at artificial control by producers of raw materials are occasioned by an excess of supply over demand, and the consequent decline of the price of the product to a level at which a substantial number of producers are unable to obtain what they consider a reasonable profit. But the excess of supply may be of various kinds, and may arise from several distinct causes: it may, for example, be temporary or permanent in character, and it may be caused by an excess of productive capacity or by an abnormal output per unit of capacity, demand in both cases being normal, or by a decline in demand, supply conditions remaining unchanged. In practice the excess supply may be due to a combination of such causes, but for the purpose of theoretical analysis each main kind and cause may be considered separately.

A. *Where the excess supply is due to an excess of productive capacity, demand being normal (i.e. not necessarily unchanged, but such as might reasonably be expected).*

When the productive capacity of an industry has been excessively extended, it is usual to offer an explanation in terms of erroneous estimates on the part of producers. As a body they may have been unduly optimistic as to the probable trend of demand, or their estimates may have been upset by unexpected events, while as individuals each may have over-estimated his real competitive ability and therefore the share of the increased demand which he will be able to secure. Where this is the true

¹ *Note by Editor.*—This article by Mr. Rowe may be considered to be an introduction to a series of detailed "Studies in the Artificial Control of Raw Material Supplies," which he is preparing, and which will be issued to members of the Royal Economic Society as Special Memoranda.

cause of the excess capacity, and where the technique of production in its broadest sense has not been advancing to any appreciable extent, there is obviously a general case for putting the excess capacity into cold storage by some measure of restriction until such time as the demand has caught up with the potential supply. It would obviously be wasteful to allow capacity to disappear, when there is every probability that it will shortly be again required. A general restriction of output to maintain prices at a level which will enable the marginal producers to make ends meet is, under such conditions, a sound policy from the point of view of both producers and consumers. But this general case for restriction rests on the condition that the technique of production is not making rapid strides. If it is, the situation is entirely changed, for the most recently established capacity will be able to produce at much lower costs than the existing capacity, and any future increase in demand will be met by the establishment of additional still lower cost capacity. The older excess capacity is really obsolete, even though it would not have become obsolete so quickly if there had been no errors on the part of the entrepreneur function. Restriction in such a case is fundamentally unsound: what is wanted is to hurry this obsolete plant out of existence, not to prolong its life. Restriction under such circumstances is obviously disadvantageous to the consumer, while, as will shortly be demonstrated, the chances of any ultimate benefit to either high-cost or low-cost producers is remote.

An excessive expansion of capacity is not, however, always due to errors by the entrepreneur function: its creation may be an entirely correct and deliberate procedure. For if the technique of production is making rapid progress, new capacity will be introduced even if demand is stationary, simply because it is more efficient than the existing marginal capacity. Unless this marginal capacity can be modernised at a cost less than the cost of establishing new plant, which is often not the case, especially in extractive industries,¹ entrepreneurs will deliberately create additional capacity because it will yield a more than normal profit, owing to its lower cost of production, and they will be entirely justified in so doing. Industrial progress takes place by the substitution of more efficient capacity for the least efficient

¹ There is here a physical problem, a financial problem, or both, and in respect of the latter it may be observed that such modernisation requires that the capital cost of the existing plant shall have been virtually written-off, i.e. that adequate allowance shall have been made for obsolescence. If technical progress suddenly quickens, it is most unlikely that this will have been done.

existing capacity, and this may very probably mean excess capacity until the latter disappears. In this sense there is a chronic tendency to excess capacity, a fact which has hardly received due recognition in economic theory. In many industries in recent years there has certainly been rapid progress in the technique of production, and restriction as a remedy for excess capacity, whether resulting from error or by deliberate design, is in such circumstances almost certainly an unsound policy from the point of view of both producers and consumers. This is best realised by considering what is likely to happen under *laissez-faire*, and then what is likely to happen if a restriction scheme is put into operation.

As capacity becomes excessive, prices fall to the prime costs of the marginal producers, and even perhaps below that. By all the text-book rules what ought then to happen is that, as their financial resources become exhausted, the highest cost producers ought to close down, thus reducing the excess capacity. But in fact what happens first is that they "reconstruct" their capitalisation, or are bought out at very cheap prices by groups of speculatively minded investors, who hope that prices will before long rise a little, and that then, with its low capital charges, their purchase will become profitable. Since the decline in the price of the product will have put a stop to the further introduction of new low-cost plants, and since it will have taken some time to induce the old high-cost concerns to sell out, the odds are that before long prices do begin to rise, because the normal increase in consumption is catching up the excess capacity. In due course prices rise to a level at which the decapitalised concerns reap profits such as enable them to finance the physical reconstruction of their plants either themselves or by obtaining capital from the public. Provided that entirely new capacity is not added in excess of the requirements of demand, equilibrium becomes re-established, the old high-cost concerns have reduced their costs to the level of the old low-cost concerns, and even lower still, because they will have been able to take advantage of still later improvements in technique. Then in due course the cycle will begin again. Thus in all cases where modernisation of existing capacity is a reasonable financial proposition—which is true to a very considerable extent of most manufacturing concerns—the firms do not disappear, nor is much plant closed down, but the result is merely decapitalisation, which paves the way for modernisation. Where, however, modernisation is not a reasonable proposition—for example, a mine approaching exhaustion—that

mine will be closed, as witness the innumerable abandoned mines in Cornwall or in the copper regions of the U.S.A. Similarly, where the advance in technique takes the form of the opening-up of new fertile land with which older farms or plantations cannot compete because the natural fertility of their soil has not been renewed, or because their soil or situation never was so suitable, these older plantations will be abandoned, though if demand is increasing rapidly, and if new capital is not cheap, the process may be very gradual. On the other hand, if the conditions are reversed, and if, as well as the opening up of new territories, rapid progress is being made in the technique of cultivation, in planting material, etc., the development of a substantial excess capacity may be rapid. Until recent years, at any rate, the former set of conditions may perhaps be said to have characterised many agricultural industries, and hence the fact that though there have been severe crises due mainly to this cause, these crises have not resulted in the abandonment of planted areas on any conspicuous scale. What has not happened in the past is no guide to what may happen under different conditions in the future, but, on the other hand, the advance in technique may be of such a kind as to enlarge the range of possible modernisation.

Under *laissez-faire*, therefore, the obsolete excess capacity is first of all decapitalised: this paves the way for modernisation, but if that is even then an uneconomical proposition, the excess capacity will eventually be closed down. These processes of decapitalisation and closing-down are unpleasant and costly, but it is extremely unlikely that this price of progress can be reduced by any restriction scheme or other control by the producers. Assume that output is restricted to such an extent as will enable the highest-cost producers to make ends meet on the basis of their restricted production. The new low-cost concerns will still find this a reasonably profitable level, and, in so far as their finances permit, they will probably continue to expand their capacity. If they do not do so, and assuming that any addition whatever to capacity is prevented, the normal increase in demand will in due course enable the restriction of output to be relaxed and ultimately equilibrium will be re-established, prices will be what they were before, and control will be removed. But during this passage of time, technical progress will have continued, and it will now be more profitable than ever to instal new capacity. If for any reason the introduction of new capacity takes place slowly, or if there is an unexpected increase in demand, it may be that demand will outrun the existing capacity, and prices will

rise sharply. If this happens, the existing high-cost producers may make enough profits to modernise their plant if it is capable of modernisation, or be able to borrow sufficient new capital for the purpose. This is the one and only justification of a restriction scheme under the conditions now being discussed: it may enable the marginal producers to obtain the finance necessary for modernisation, when under *laissez-faire* they would be unable to do so without undergoing the process of decapitalisation. But the probability of this is not very great. These high-cost concerns will not have made adequate profits during the restriction period, and the shareholders will be clamouring for a large share of any profits which may be made in any succeeding boom: the chances of the company being able itself to finance the reconstruction are therefore remote. If, alternatively, it tries to borrow new capital, its record during restriction will have been bad from the investor's point of view, and it will necessarily have to carry as dead weight a large part of its existing capital: it will, in fact, have to hoodwink the public into overlooking the fact that it will be over-capitalised. Finally, being over-capitalised, its chances of a really successful career in the future are obviously not bright. Where a concern has not made sufficient allowance for obsolescence, the process of decapitalisation is virtually inevitable, and it might as well be sooner as later.

Thus under the most favourable conditions, the benefits of restriction are extremely doubtful, and depend very largely on chance. In actual practice such conditions are most unlikely to be fulfilled. It is obviously extremely difficult to prevent some addition to capacity, for usually there will be some outsiders who, being on full production, will be making good profits, and who will be perfectly safe in expanding capacity provided it is of the most up-to-date character. It is also very difficult to prevent the advent of new producers, especially if the capital required can be obtained without recourse to the investing public—for example, native rubber planting, or sugar-cane growing by small farmers. It may, indeed, be very difficult to prevent expansion by the low-cost producers, who, having been cajoled or bullied into the restriction scheme, have little faith in its merits and are therefore inclined to make preparations against the probable time of its removal. Finally, experience shows that once a restriction scheme is firmly established, the temptation to raise prices so as to give the high-cost concerns some profit is very great. Since output is restricted, costs are increased, and merely to enable them to make ends meet, prices must be raised

above the level of marginal costs (exclusive of profit): usually costs mount more than proportionately with every further turn of the restriction screw, and the higher prices are raised, the more difficult it becomes to prevent the establishment of new capacity. Restriction, if successful, is in practice a slippery slope.

The low-cost producers have obviously nothing to gain from a restriction scheme, unless they happen to want a little breathing space to perfect their organisation or to bring newly established capacity into production. In the case of mining, the exhaustion of irreplaceable resources at prices which give an inadequate profit may seem an argument in favour of restriction on their part, but the odds are that restriction merely means a postponement: the high-cost producers have got to undergo the process of decapitalisation or closing down sooner or later, and they will not submit without a struggle. Moreover, the low-cost concerns have to bear in mind that as each year passes even their plant is becoming obsolete.

From the consumer's point of view, a restriction scheme in the circumstances now under consideration has nothing to commend it: it is, in fact, a sacrifice of the consumer's interests now and in the future to the vested interests of the high-cost producers. The argument is often brought forward by producers that the consumer may lose now by restriction, but will ultimately gain, because capacity is thus kept in existence against the day when it will be wanted, whereas without restriction it would disappear and the low prices of to-day would be at least balanced, if not outweighed, by famine prices in the future. But this is a very specious argument. Before capacity goes out of existence the process of decapitalisation takes place, and this greatly strengthens and prolongs its hold on life: if in the end it does disappear, the odds are that the amount of lower cost capacity has become adequate, and that the consumer need not regret its passing. From the consumer's point of view, the essential thing is to hasten the introduction of low-cost capacity, and thus obtain the benefits of the progress of productive technique: restriction has obviously the reverse effect. This is subject to qualification in the case of minerals the supply of which is believed to be very limited; but otherwise the consumer has everything to lose by restriction when excess capacity has developed under conditions of a rapidly advancing technique of production.

B. Where the excess supply is due to a temporary increase in output from a normally sufficient capacity, demand being normal.

While the phrasing of the above conditions is purposely general, so as to include mining, which may be influenced by an excess or deficiency of water supplies, etc., for practical purposes the reference is only to abnormal crop yields due to specially favourable weather. There is therefore an implication that the temporary increase will be balanced sooner or later by a short yield, and the fundamental argument for some measure of artificial control rests on this implication: in other words, that instead of very low prices for a bumper crop, followed by very high prices for a short crop, it is in the interests of both producers and consumers to average out supplies and prices. This can obviously be accomplished only by holding the excess supply as a reserve stock until the short crop eventuates. If this task is left to merchants and speculators, they will naturally endeavour to buy as cheaply as possible, and thus producers will obtain only very low prices for the bumper crop, and only average prices for the ensuing short crop, since the merchants will make good the deficiency from their reserve stocks. Hence it is argued that producers would do better to perform the task themselves, and that collectively they should be able to obtain the necessary finance more cheaply than individual merchants and speculators: thus they should reap not only the profits made by the merchants, but even greater profits. Moreover, it may be doubted whether merchants will really perform the task in full, for, as Mr. J. M. Keynes has pointed out, the present economic system abhors the holding of reserve stocks: the merchants will not wait any considerable time for the short crop to eventuate, and unless it follows quickly, they will gradually unload, with the result that each year there is an excess of supplies, and producers obtain lower prices in consequence. If this happens, admittedly producers will get high prices for the short crop when it arrives, but they will have lost not only by the low price of the bumper crop, but also by depressed prices for the normal crops which intervene before the short crop.

The need for producers themselves to hold the excess supply does not seem to have been felt in most cases until recent years, nor, indeed, the need for anyone to do so on a grand scale. The need has arisen with the increasing specialisation of production and its accompaniment of an extremely complicated system of marketing and distribution. When producers were in more

direct touch with consumers, price concessions by the former reached the consumer more or less in their entirety, and unless the consumer's demand for the product was extremely inelastic, the low price meant a considerable extension of demand: the excess supplies therefore passed into actual consumption. The producers might lose heavily in the bumper season, but any accumulation of stocks was thus avoided, and they were able to make good their loss when the short crop eventuated. But in recent times the costs of marketing and distribution—including perhaps some processing, etc.—have become very large compared to the costs of production itself, and since these charges are more or less constant, irrespective of the volume handled, it follows that a large percentage reduction in the producer's price means a very much smaller percentage reduction in the final price at which the actual consumer buys. If the normal cost of production represents one-third of the normal final price to the consumer, a 50 per cent. reduction of the producer's price means less than 17 per cent. reduction in the consumer's price: in actual practice the consumer will probably be lucky if he gets a 5 per cent. reduction, at any rate within a reasonably short period, owing to the friction of this modern marketing machinery. Hence to-day the producers of some commodities might literally give away a crop, say, 20 per cent. above normal, and yet the consumer's demand would not be extended by 20 per cent. Our modern system of specialised production has at least one great drawback—namely, that it is extremely difficult to clear a glut.

The holding of surplus supplies, due to bumper crops, has therefore become an almost unavoidable necessity, and the task is being virtually forced on producers, because from their point of view merchants and speculators will undertake it only on very expensive terms, and even then in all probability they will not discharge it properly, *i.e.* they will not hold the surplus of the bumper crop if the short crop is long delayed. At first sight this evening-out of supplies seems the only rational procedure, both from the point of view of producers and consumers, but it must be realised that the operation involves additional costs, which must be paid by one party or the other. Now the consumer will not pay these costs in enhanced prices unless the available supplies are insufficient to satisfy his demand: in other words, if the consumer is to pay, the short crop must be short by the excess of the bumper crop, and, in addition, by an amount sufficient to enable prices to be raised to recoup the costs of the

stock-holding. In the long run crops must average out, and therefore producers must either gamble on the short run or reconcile themselves to bearing the costs of their self-imposed task. Human nature being what it is, they will almost certainly choose the former, and trust to the probability of a sufficiently short crop in the near future. Their best chance is to wait for such a short crop, and then recoup their whole costs in a lump. But it is extremely unlikely that they will be able to obtain the necessary finance on compound-interest terms, which, if the stocks have to be held for an appreciable time, are in any case of a fairly terrifying nature. In practice, they will almost certainly try to add the interest charge to the price during the intervening normal years, and their only means of doing so is by holding back supplies. Each year that passes will therefore see an addition to the reserve stocks, and the short crop must be sufficiently short to enable these additional stocks to be liquidated as well as the original excess of the bumper crop. But this addition of the interest charge to normal prices not only involves the holding of additional stocks, but will also stimulate the introduction of new capacity in excess of that required to meet any expansion of demand. With normal prices, the advance of productive technique tends to the creation of new capacity, and with prices above normal, there is a further stimulus. If productive technique is improving rapidly and if the period of gestation is not very prolonged, there may be a substantial addition to capacity while the stocks are being held, and therefore the really short crop may never materialise, any short yield from the old capacity being offset by the yield of the new capacity. When this happens, conditions change to those of excess capacity such as have been already discussed, but greatly complicated by the presence of large reserve stocks.

If therefore producers decide to gamble on the short run, they will in all probability fail unless they can prevent the addition of any new capacity at any rate in excess of what is necessary to meet the normal increase in demand. If demand is trending upwards, and if they can prevent any addition to capacity whatever, the disposal of their reserve stocks obviously becomes much simpler and more certain. But control of production to this extent is virtually impossible with agricultural crops, while from the consumer's point of view the benefits of price stabilisation would be speedily outweighed by such an obstruction to the progress of productive technique. Such considerations, however, are really beside the point, for the producers obviously ought not to

enter upon a gamble where ultimate failure is inevitable: they must, in fact, reconcile themselves to bearing the costs of the stock-holding, and the only question is whether they will lose less in this way than by allowing matters to take their course. The answer will depend on the conditions in each particular case, but in view of the enormous difficulties of disposing of a bumper crop under modern conditions of specialised production, and the consequent heavy costs of marketing and distribution, it is quite likely that in many cases producers will be well advised to attempt some control of stocks. The great danger is that they will be tempted to gamble on the chances of the short run. Ultimately, of course, the costs or losses involved in these bumper crops are passed on to the consumer, whatever happens, because producers will take account of the prospects of such costs or losses in making their decision to continue or to undertake the production of the commodity. But this adjustment is a very long-period adjustment, and producers will not, of course, in practice derive much comfort therefrom. Nevertheless, any attempt to make the consumer pay in the short run is an extremely dangerous undertaking.

C. Where the excess supply is due to a temporary decline in demand, productive capacity and its output being normal.

Here the assumption is that the same capacity will very shortly be again required, and a measure of control is needed to preserve the existing capacity intact, since otherwise there would be much economic waste involved in the disappearance of some existing capacity and the construction of new capacity within a short period to take its place. Without control the consumer would gain by very low prices until some capacity had ceased production, but when demand revived, supplies would be short and prices exorbitantly high until the new capacity was actually producing. The longer the period of gestation, the stronger is the argument for control from the consumer's point of view.

The phrase "a temporary decline in demand" requires, however, further definition. It may mean merely a temporary decline in the purchases of merchants and middlemen from producers, actual physical consumption remaining normal, or it may mean a temporary decline in the demand by actual consumers, *i.e.* a temporary reduction of actual physical consumption. These are two very different things, and require separate consideration.

Uneven buying is a common feature of many primary markets for raw materials. Merchants and manufacturers buy freely

on a rising market, and when they have bought to the limit of their available credit, buying fades away to nothing, and since some producers before long require to convert their produce into cash, being unwilling to run the risks of stock-holding or unable to obtain the necessary finance, prices begin to decline. Once started, the fall in prices may go a long way, for merchants and manufacturers will not replenish their stocks and will be content to buy only from hand to mouth. The market becomes entirely a buyers' market, and weak selling by individual producers sends matters from bad to worse. The proper remedy for such difficulties is the establishment of a centralised marketing organisation or single selling agency. The special function of such an organisation is to prevent weak selling. While a single selling agency can do much to even out buying without causing producers to run short of cash, *e.g.* by offering forward sales at very attractive prices, etc., it can do a great deal more if it is able to finance the holding of stocks by producers even for short periods. There is, however, a drawback to such stock-holding, which in certain circumstances may be serious. Such stock-holding gives a certain monopolistic control over price in the short period, and the result is that merchants and speculators will be frightened to carry stocks, and the single seller may find its commitments larger than is deemed desirable, with consequently increased difficulties in respect of finance. The temptation to hold stocks not as a last resource and to the smallest possible extent, but as a weapon of offence which will secure monopolistic control of prices, must also be resisted. The function of centralised marketing is not to obtain additional profits for producers, but to minimise the loss caused by the weak selling of individuals when the primary demand is irregular. It is a limited but most valuable function, and provided it is not pressed beyond these limits, and so long as any stock-holding is undertaken with the utmost circumspection and due regard to its necessity, centralised marketing has everything to commend it.

A temporary decline in actual consumption presents entirely different problems. It is usually the result of general trade depression in the countries of largest consumption. Even if substantial price concessions by producers result in a substantial lowering of prices to the actual consumer—which is unlikely to happen in many industries, for the reasons given in the previous section—it does not follow that there will be much extension of demand, for in periods of general trade depression demand often becomes extremely inelastic. If the decline in consumption

is such that the speculator will not carry stocks except at a price which means the decapitalisation or closing-down of a substantial capacity, there is admittedly a general case for artificial control, since it is certainly undesirable for such capacity to be lost when it will be very soon wanted again. If there is a prospect that when consumption revives it will not only return to normal, but also make up its accumulated deficiency, there is a general case for supposing that the best method of control will be to hold as stocks what cannot be sold at a price just high enough to prevent the closing-down of any capacity. But this is a risky policy, for no one can be sure that consumption will, so to speak, make up for lost time, and if it does not, the liquidation of such stocks will keep prices depressed for perhaps a considerable period of time, since merchants will not trouble to replenish their stocks until producers' stocks are exhausted. The existence of surplus stocks, which must be disposed of, and which are not being held firmly against an expected shortage, usually have a depressing effect on prices out of all proportion to their relation to the current rate of consumption. On the whole, restriction of production is usually the better policy, though much depends on the costs of stock-holding as compared with the increased costs of production of a restricted output in different industries.

There is no theoretical objection to restriction in such circumstances, provided certain conditions are observed. In the first place, if the progress of productive technique has been rapid and if the period of gestation is longish, a certain amount of new capacity will be coming into production during the period of restriction. Equally if the period of gestation is short and the period of restriction extends beyond this period, it is conceivable that new capacity will be initiated and brought to the producing stage during the restriction. Any addition to capacity which will make the total capacity excessive in relation to the normal demand when that revives, must be prevented by the retirement of a corresponding amount of old capacity. Restriction must not therefore raise the price so high as to keep in existence capacity which will never be wanted because it has become obsolete. The object of restriction should be to keep in existence only capacity which will be shortly required, and not to hinder the process of decapitalisation or closing down which the progress of productive technique requires. Secondly, producers must, in their own interests, resist the temptation to tighten restriction sufficiently for the high cost producers to make profits. This is something of a vicious circle, and is in any case

a most dangerous policy. It is a vicious circle because every increase in restriction means usually a more than proportionate increase in costs, and the increase in costs may easily necessitate still higher prices if profits are to be earned, with the result that restriction is tightened still further, costs are raised still higher, and so on in an endless chase. But it is also a dangerous policy, because at the least the price of the commodity must be raised not merely to something approaching the costs of production (excluding all profits) on a full normal output, but to something approaching those costs on the restricted output. This may well be to raise prices to something approaching the normal economic level (i.e. including profits), while if any attempt is made to raise prices to a level which will give even modest profits to the marginal concerns on the restricted output, the odds are that this is a highly remunerative price to any producer not bound by the restriction, especially if the progress of productive technique means that his costs will be lower than the normal costs of the present marginal firms. Moreover, the higher the price, the less the quantity demanded, and though demand is often inelastic in the depths of a trade depression, it probably becomes more than normally elastic as the depression passes and the revival begins. It is therefore essential, even from the producers' point of view, that restriction should not be applied to raise prices more than is necessary to enable the marginal firms to make ends meet with a struggle. The directors of a restriction scheme should err on the side of too little restriction: when capacity which is really going to be wanted is being decapitalised or closed down, then the restriction screw may be tightened slightly, but not before. Subject to these conditions, however, a restriction scheme to meet a temporary decline in demand when there is no excess capacity encounters no general theoretical objection. In practice, however, it is very difficult to secure the fulfilment of these conditions.

D. Where the excess supply is due to a permanent decline in demand, productive capacity and its output being normal.

Under such conditions, there is obviously no general case for restriction or stock-holding, which forms of control would be applicable only in exceptional circumstances as auxiliary to some other form of control. This situation is so radically different from those already discussed that it will not be considered here.

PART II

It is now proposed to comment very briefly on some recent attempts at artificial control of the supplies of certain raw materials. Selection has been made partly on grounds of intrinsic interest and general importance, and partly so as to cover various types of extractive industries.

1. *Copper.*

During the war the world's production of copper was rapidly expanded to meet the need for munitions, and the peak production of 1917 was not again required until 1927. The post-war depression of 1920-21 and the resulting sharp contraction in the demand for copper, were met by the pooling of surplus stocks in America under the control of an organisation known as the Copper Export Association, which obtained the necessary finance by the issue of bonds to the general public. Production under the control of these American producers was at the same time most drastically curtailed, and with the rapid revival in 1922 and 1923 the surplus stocks were disposed of, and the restriction of production was gradually relaxed. Though the American producers undoubtedly shouldered most of the burden—for other producers hardly restricted their output at all—there can be little doubt that this control was well worth while from their point of view: under *laissez-faire* the accumulation of supplies before mines were forced to close would have been enormous, and with a demand obviously very inelastic prices would have fallen even far lower than they did before individual merchants and speculators could have been induced to carry stocks to the required extent. From the beginning of 1923 organised control of production and marketing virtually ceased, but most of the big groups of producers maintained some voluntary restriction. The general level of prices was between 13 and 15 cents, and this level was sufficient to stimulate a steady increase in output from Europe, Africa and Canada. But it was not a sufficiently high price to satisfy the higher cost producers in the U.S., or indeed U.S. producers in general, so long as they had to forgo full production. World consumption was steadily increasing, but the increase in production outside the U.S. was nearly sufficient to keep pace with it, and the high-cost U.S. mines could not face any considerably lower price level. For the last twenty years the improvement of productive technique has been proceeding at an accelerating pace, and, in addition, new low-cost sources of pro-

duction have been gradually developed. Many of the older mines in the U.S. were not worth the capital costs of modernisation, and the big copper groups gradually began to realise that these properties would have to be written off. It was decided, however, to attempt to extract a little more profit before submitting to the inevitable. There can be little doubt to-day that this was the object of an influential section of the membership of Copper Exporters Inc., which was established in 1926. The almost equally powerful remainder were honestly aiming at the adjustment of supply to demand so as to stabilise prices and eliminate speculation. Space forbids a detailed description, but eventually the high-price party got their chance, took charge of the organisation, and nailed the price at 18 cents, loudly calling for sufficient restriction to maintain it indefinitely. Even if the present world depression had not developed, it is tolerably certain that Copper Exporters would have had to forego such monopolistic prices within a year or two. Many of the American members, especially the low-cost South American mines, had been improving and expanding their capacity, and were becoming more and more unwilling to submit to restriction. The few non-members of the combine were reaping fabulous fortunes, and the combine had never been able to force a real restriction on its foreign associates in Europe and Africa. The drop in price to 11 cents was precipitated by the decline in demand, but it would have come about in due course as new low-cost capacity, armed with the latest advances of productive technique, was added to a total capacity which for the same reason was already excessive. The history of copper provides a very good general example of the general case discussed above in Part I *A*, and the futility of restriction under such conditions.

2. *Tin.*

The Bandoeng Agreement of 1920 for the pooling of surplus stocks in the East requires a detailed study such as is impossible here, but it may be remarked that such a study provides a good illustration of the difficulties, referred to in Part I *B*, of disposing of really surplus stocks, and their depressing effect on prices even under conditions which were distinctly favourable. Coming to more recent events, the excess supplies which had become so considerable by midsummer 1929 were due to an excessive expansion of capacity resulting from the price boom of 1926-27: little fault can be found with consumption until the onset of the present world depression. But it is difficult to

maintain that any considerable part of the recent additions to capacity is unjustified, in the sense that it ought not to have come into existence, and would not have done so but for the blind optimism of the entrepreneur function. Admittedly a few of the new concerns were foisted on a gullible public, and a good deal of existing capacity changed hands at inflated prices, but that is beside the point. The bulk of the new capacity is low-cost capacity embodying the latest advances of productive technique. In Malaya the dredge of 1928 design is vastly more efficient than the dredge of even, say, five years previously. The costs of Chinese producers have been cut almost in half by the introduction of the oil engine and improved gravel pumps, and it must be remembered that the Chinese output has greatly increased even if the European output has increased still faster. In Nigeria costs have undoubtedly been greatly reduced, and though probably still higher than would justify the expansion which has taken place, Nigeria must be regarded as an infant industry, building for the future. Of Bolivia it is difficult to speak, but she has certainly benefited, more perhaps than Malayan producers, by the improvements of smelting technique. There can, in fact, be no doubt of the nature of the excess capacity, and therefore of the potential dangers of restriction. During the last nine months, consumption has temporarily declined, owing to the world trade depression, and if there was no such excess capacity, a restriction scheme might well be justified. Restriction may be desirable, even as things are, but it must take account of the excess capacity. If the high-cost concerns persuade the low-cost concerns to join a restriction scheme, they will want sufficient restriction to preserve their existence, and the ultimate interest of the low-cost concerns is that they should cease to exist. Conversely, if a restriction scheme of a proper kind is proposed, the high-cost producers will stay outside, and with no restrictions on their output they may preserve their existence for a long time at the expense of the restrictionists. The desirability of restriction from the low-cost producers' view largely depends, however, on a further factor—namely, the exhaustion of their ore reserves at relatively unprofitable prices. From the consumer's point of view, the importance of this factor ultimately depends on the question whether the supply of tin ore in the world is really limited, as compared with the probable requirements of consumption. Those who believe that this is the case may be justified in advocating restriction despite all dangers and difficulties, but those who scout such an idea may well feel that it will be time

enough to consider restriction measures when a substantial number of high-cost producers have been eliminated.

3. *Coffee.*

Brazil's coffee valorisation schemes during the last twenty-five years furnish a detailed illustration of the discussion under condition B in Part I: indeed, it must be confessed that that discussion is largely a generalisation of Brazil's experience. The equalisation of supplies in the case of Brazilian coffee is both specially necessary and less difficult and dangerous than with most crops. It is specially necessary because the demand for coffee is normally rather inelastic, and because the price of green coffee forms but a small part of the price of the finished article as purchased by the consumer, while the bumper crops are enormous and the short crops are very small. It is less difficult and dangerous because of the physical fact that a bumper crop exhausts the strength of the trees, and therefore the following crop is normally very short, and the next one or two crops are likely to be below normal: the effects of the bumper crop are, however, greatly influenced by weather conditions. Finally, coffee does not deteriorate, if stored under proper conditions, so rapidly as most commodities. Under *laissez-faire* merchants and speculators would carry the huge excess supply of a bumper crop only if they could buy at extremely low prices, and Brazil had the mortification of seeing these surplus stocks sold at enormously profitable prices, perhaps only a twelve month later: at the same time, the price which they received for the short crop was perhaps little above normal. In all the circumstances it is little wonder that the first large-scale attempts at reserve stock-holding by producers were undertaken by Brazil. But naturally attempts are always made to make the consumer pay the costs of storage: in other words, Brazil has always been gambling on the short run. In the 1907 valorisation Brazil probably came out with a small net gain, though some authorities would deny this. The 1917 valorisation, aided by a great frost, was undoubtedly most profitable,¹ and confirmed Brazil's faith in the superiority of artificial control. Eventually permanent control was established in 1924, and supplies were rigidly withheld so as to maintain prices at a level which would reimburse producers for the extra expense involved in financing the coffee

¹ In this case there was a temporary decline in demand owing to the effects of the Great War, as well as excess supplies from abnormally large crops. It is impossible, however, to go into details here.

held in reserve storage. But no steps were taken to prevent additional planting within Brazil: the rivalry of the other states with Sao Paulo, and political considerations made this impossible. Rich fertile land within Brazil on which the costs of production are infinitely lower than on the older plantations, began to be opened up at an even greater rate than it would have been at a normal price level, while other coffee-producing countries found the price-level sufficiently attractive to double their production. Hence stocks in Brazil steadily piled up, and with the new plantations coming into bearing the chances of a really small crop became yearly more remote. The problem of the equalisation of supplies has now become largely over-shadowed by the problem of excess producing capacity both in the world as a whole and in Brazil. The halving of prices last October, and the new regulations as to stock-holding, merely mark the beginning of a new epoch, in which the Institute will have to play its cards extremely carefully if it is not to prolong Brazil's agony. At the same time, the removal of all artificial control would be almost unthinkable: artificial control has got Brazil into the mess, and artificial control of some kind must get Brazil out again. But the lesson of Brazil's experiments is not that the equalisation of supplies by producers is economically unsound, but that producers must not seek by gambling on the short run to make the consumer pay the costs of the process.

4. *Sugar in Cuba and Java.*

The various attempts at artificial control in Cuba during the last five years are so complicated by national, racial, political, personal and other similar factors—as, indeed, is the world sugar situation—that it is extremely difficult to make summary generalisations. It may, however, be pointed out that in Cuba the problem of excess capacity has been greatly complicated by the rapid improvements in the technique of production, including the recent development of new rich fertile lands. Restriction in Cuba was as much the defence of the high-cost against the low-cost producers within the island as it was the defence of the Cuban industry against the unexpectedly rapid recovery of European beet-sugar and the results of tariff protection in the U.S.A. and other countries. Restriction was abandoned not because it had, in fact, stimulated the addition of new capacity in other countries, but because the low-cost producers in Cuba, in their desire to regain freedom, succeeded in persuading the Cuban Government that this was the result, and at the same time

they revolted. The subsequent experiment with a co-operative single selling agency was ruined by personal factors, and the inability of Cuba to finance even the most modest stock-holding. Given a fair chance, it would probably have been of the greatest utility, especially in the darkness of the present time, when a comparatively small quantity of temporarily surplus sugar is depressing prices out of all proportion. But this is not to say that that or any other form of control would have avoided the crushing-out of an appreciable amount of high-cost capacity. This had to happen, and since the attempts at artificial control have been entirely directed to its prevention (for national reasons chiefly in order to prevent the complete dominance of American capital), these attempts merely postponed, and thereby have probably aggravated, the process.

A brief note may be added concerning the sugar industry of Java, which affords many excellent illustrations of various matters discussed in Part I. The Java Sugar Producers Association shows the value of a strong centralised marketing agency in a market notorious for the uneven volume of its buying even in ordinary times. On the other hand, the events of the last three years illustrate its limitations, and the difficulties which arise if it is pressed to exceed them, even when no real obstacles arise in connection with the financing of stocks. The experience of these same years also shows what great difficulties may be occasioned to producers by a really rapid and sudden advance in the technique of production. Cane variety P.O.J. 2878 has been by no means an unmixed blessing to Java.

5. *Rubber.*

The restriction scheme of 1922 was designed to meet the temporary decline in consumption occasioned by the post-war world depression. There was certainly no more excess capacity, either already in production or still to reach the producing stage, than would in all probability be required within the six to seven years which constitutes the gestation period in this industry. Equally, the technique of production was not making any rapid advance. Since it is unquestionably better to keep rubber in the trees rather than to hold stocks in warehouses, restriction was a perfectly sound policy. Actually by the time the scheme was put into operation demand had begun to revive, and it is questionable whether any restriction was really necessary. Apart from this, the only serious criticism which can be made, is that the pivotal price was fixed somewhat too high: a price of fifteen pence

was more than sufficient to enable the marginal producers to make ends meet even on a moderately restricted output, and this price undoubtedly stimulated a good deal of native planting in the Dutch East Indies during 1923-24, while it may well have hindered the revival of consumption. In practice, the scheme proved to be insufficiently elastic, especially in view of the rather abnormal conditions then ruling in the United States motor tyre industry, and it may be urged that more ought to have been done by way of enlisting the co-operation of consumers, though this was difficult in the face of what they considered an unreasonably high pivotal price. But undoubtedly the extreme rise in price could have been largely prevented if there had been the will to do so. From 1925 onwards the history of the scheme merely becomes the history of a very foolish and misguided attempt at monopolistic exploitation.

The situation which was developing during the spring and summer of 1929 was of an entirely different character. Consumption was exceeding all expectations, but this was being outbalanced by an unexpectedly large increase in the output of Malaya and Ceylon. At first this was attributed to "flush production" as the result of the enforced resting of trees during restriction, but as month after month passed without the expected reduction in shipments, it became clear that the normal yield had greatly increased. It is impossible to examine here the causes of this increased normal yield on estates, or to assess the extent to which the even greater increase in the yield of native small-holdings is due to over-tapping. In view of the rapid increase in consumption, however, it would have been very difficult to justify any measure of restriction. On the basis of the new normal yield, it is not far off the mark to say that any estate which cannot make ends meet at a price of seven pence is obsolete. There seems to be an unwillingness on the part of producers to recognise that the progress of productive technique has enormously reduced costs: Mincing Lane still seems to think of eighteen pence as "the economic price." If consumption had continued its expansion, the increased production would very shortly have been required. The Wall Street crash and the rapid onset of the present world depression have, however, come at a very awkward time for the rubber industry. The decline in consumption has completely altered the position, and some more effective measure of restriction than the May stoppage may be desirable unless consumption rapidly recovers. Restriction does not perhaps yet encounter the objections and the difficulties which are involved

by a rapid advance in the technique of production, but this will very shortly cease to be true, and restrictionists will do well to remember that the rubber industry is on the threshold of far-reaching technical developments, which will necessitate the abandonment or modernisation of almost all existing estates within the next generation, unless demand increases beyond the wildest expectations. A little decapitalisation may not be altogether undesirable as a preparation for the future.

J. W. F. ROWE

SOME ECONOMIC AND SOCIAL CONSEQUENCES OF RUSSIAN COMMUNISM ¹

HAS Soviet Russia actually contributed anything to the sum total of human experience in an economic and social sense? Every one knows that there has never been an economic and social experiment on a scale to compare with it. It is true that the French Revolution, for its time, might be compared in importance to the Russian Revolution, which involves the lives of one hundred and fifty millions of people and one sixth of the world's land surface. But the French Revolution did not by any means introduce such new and untried economic institutions and processes as has the Russian Revolution. The Russian Revolution has tried to destroy Heaven and create a new Earth without any previous pattern upon which to work. All the world knows what the Revolution has cost Russia in terms of human blood, sacrifice and suffering. The shedding of blood, the sacrifice and the suffering continue. Do the experiments with economic and social institutions give promise of any results which may compensate the Russian people for what they have suffered?

Following the great famine of 1921 and the introduction of the New Economic Policy, it was the usual thing to say that Communism had failed, and that Russia might be expected to revert, either through a violent overturn of the Soviet Power or through a gradual evolution, to a capitalistic system on the model of the Western world. According to this interpretation of events, the Russian Revolution was practically a duplication, at a different time and place, of the French Revolution. This interpretation was a plausible one, since the concessions which had to be made to the peasantry at the time of the New Economic Policy certainly appeared to foreshadow the development of a system of peasant proprietorship such as has furnished the solid support for conservative Capitalism throughout Europe. The re-establishment of private trade, the granting of concessions to foreign capitalists, the stabilisation of the currency on a so-called

¹ The material upon which this article is based was obtained while the writer was in the Soviet Union as a Fellow of the Social Science Research Council of the United States.

gold basis, the creation of a differential wage-scale graduated according to skill, training and responsibility, all seemed to presage the inevitable recrudescence of Capitalism. This belief in the eclipse of Socialism has been fortified by Trotsky's legend of the Russian Thermidor. In spite of the events of the past year, Trotsky still visualises the events which led up to his defeat by Stalin as the triumph of the Thermidorean Reaction. In so doing, Trotsky ignores not merely recent events in Russia,¹ but also the fact that Stalin won his battle against him largely by impugning the reality of Trotsky's Leftism. These circumstances account for the failure to recognise the fact that the Russian Revolution no longer shows any signs of following the course of events which characterised the French Revolution.

In terms of present human well-being it would, no doubt, have been better for the generation of the Russian people who witnessed the Revolution, if events had followed the familiar historical pattern, and if the experiment with Socialism had been finally abandoned as abortive at the time of the New Economic Policy. The benefits which will accrue to the Russian people during the next decade, even if the grandiose plans of the Party are realised, can hardly compensate for objective and subjective conditions of life, more terrible than anything since the days of Ivan the Terrible or the Tartar raids, which the population have suffered since the great October days.

It has been the unhappy lot of the present generation in Russia to serve as laboratory specimens in the most elaborate of social and economic experiments. Has this experiment in vivisection been entirely barren of results? Or is it possible that out of this experiment there will develop knowledge which can be of service to the rest of the world and to future generations of the Russian people?

If one surveys the Soviet system in the broadest sense, the most significant thing is that it is a Socialistic system which is operating with a degree of efficiency great enough to indicate its ability to survive. It can claim to be a truly Socialistic system in that the sphere of private property has all but been abolished. Private property in the means of production and exchange has either been completely abolished or is in the process of abolition. Private property in the means of consumption has begun to be abolished as the plans for public dining-halls and communal apartment houses are being put into execution. Within the

¹ See the writer's article on "The Fate of the New Economic Policy," *ECONOMIC JOURNAL*, Vol. XL, June, 1930.

small sphere which has been left to private property, property rights have no protection against arbitrary limitation or destruction. Even the most personal property is liable to confiscation for communal use without previous notice.¹ The Soviet system can claim to be a Socialistic system in that the processes of production and exchange are carried on almost exclusively by organs of the State. The system can claim to be Socialistic because its economic processes are not carried on for profit.²

The experiment in the Soviet Union has definitely proved that a Socialistic economic system can survive and carry on at least the essential functions necessary for survival. Whether such a system is superior in productive efficiency to the Capitalistic economic system is quite another matter. Whether it is superior to the Capitalistic system in terms of human well-being is still a different matter. For the first decade after the October Revolution, the Soviet economic system could only demonstrate its ability to repair and to put into operation the machinery of production which was inherited from Tsarist Capitalism. Even by the end of the first decade, such additions to capital equipment as had been made were not adequate to restore the industrial equipment of the country to the rather low level of efficiency which characterised pre-Revolutionary Russia. Nevertheless, even during this first decade the ability of a Socialistic economy to "carry on" somehow was demonstrated. What was not demonstrated was the ability of a Socialistic economy to create and to expand its own capital equipment.

It has long been recognised that the problem of how to induce enough saving to maintain and expand capital equipment would be one of the most difficult problems which would face a Socialistic regime. It was assumed that a Socialistic system would also

¹ The land, houses, animals, tools, household furniture and even the clothing of the *kulaki* were confiscated following the announcement by Stalin of the policy of the "liquidation of the *kulaki* as a class" in December 1929. The process of expropriation of the *kulaki* began early in January, although the decree of the Central Executive Committee and of the Council of People's Commissars of the Union legalising these expropriations was not issued until Feb. 1, 1930. The Nepmen in Moscow were stripped of all their possessions, when the Moscow Committee of the Party, carried away by enthusiasm, decided to extend the policy of the "liquidation of the *kulaki* as a class" to the Nepmen. In spite of the fact that no decree was ever issued which legalised these confiscations, and in spite of the fact that Stalin repudiated the action of the Moscow committee and forced it to issue a retraction of its announcement of "liquidation," the Nepmen did not receive back the property which had been taken from them.

² It is true that Soviet industries are expected to show a profit, if possible, but this profit does not accrue to individuals, nor, except to a very limited extent, even to the workers who compose the industry. Instead, these profits are used as one source of capital saving to permit the expansion of capital equipment,

be a democratic system. The distribution of income in a Socialistic state would therefore depend upon the expressed will of the majority, according to this hypothesis. Since the painfulness of saving is in inverse ratio to the size of the income, it was argued that it would be much more painful for multitudes of persons with small incomes to save than it is under a Capitalistic system, where a large portion of the total national income is saved by persons whose income is so large that saving entails little or no pain. This contention certainly has some validity, since it is not necessary to state it in such hedonistic terms. The record of capital investment in the Soviet Union for the last couple of years has proved that expansion of capital equipment can take place within a Socialistic economy. Seldom has so large a proportion of a nation's income been saved and devoted to capital construction. It is possible that in time of war a larger proportion of national income may, in some countries, have been withheld from consumptive uses and devoted to war expenses. But rarely has a larger proportion been both saved and invested in concrete capital goods.¹ This saving is all the more impressive when the very low standard of living is considered.

It may be possible that this social saving could not have taken place under a democratic Socialistic system. Certainly nothing like the amount of social saving which has taken place in the Soviet Union during the last three years could have taken place if the Soviet system had been a democratic one. Only a despotism could have made possible the export of butter, eggs, honey, flour and other food products and their sale on the foreign market

¹ The data on capital investment which are published abroad by various organs of the Soviet Government are usually somewhat inflated. In some instances items of current expenditures are included under the heading of capital investment. In other cases total capital investment is not distinguished from net capital investment, inasmuch as allowance is not made for depreciation. It is, of course, a difficult enough problem in any country to determine exactly what is true capital investment and what is not. In *Kontrol'nye Tsifry Narodnogo Khoziaistva Na 1929-30 God*, pp. 452-3, data are given from which it is possible to compute the net capital investment after allowance for depreciation. According to these data, new capital investment in all branches of the national economy for 1928-29 amounted to slightly more than five billions of rubles, and for 1929-30 to slightly more than ten and one half billions of rubles. National income for the first of these two economic years amounted to 28,534 rubles and to 34,363 million rubles for the second (*Ibid.*, p. 467). More than 17 per cent. of the national income was saved for the first of the two years, and more than 30 per cent. for the second year, according to these data. It has been estimated that for the year 1925 about 17 per cent. of the national income of the United States was saved. Morris Copeland, "The National Income and its Distribution," in *Recent Economic Changes in the United States*, p. 759. The propriety of such a comparison may well be questioned, on account of the difference in methods of computing both income and capital investment in the two countries.

at a price far lower than that which the nearly starving populace would have been willing to pay.¹ The funds obtained from the sale of this produce were expended mainly in the purchase of mechanical equipment and technical aid from abroad. But if the wishes of the population could have been openly expressed, the decision would have been overwhelmingly for less capital equipment and more food.

Not only has the Soviet economic system demonstrated that adequate saving of capital can take place in a Socialistic economy, but the evidence so far available indicates that the technique of mass production can be transferred from Capitalistic countries to Soviet Russia. Stalin has staked the future of the Party upon this possibility, and in its furtherance, thousands of engineers and technical experts of all kinds have been brought to Russia. Technical aid contracts have been made with great American companies for the construction of factories and the installation of machinery.² While great difficulties have been encountered by these technical experts in carrying out the ambitious plans of the Party chiefs for the introduction of the latest means of mass production, the evidence does not show that these difficulties are very much greater than would exist if the attempt to modernise industry had been made when a Capitalistic regime was in control of Russia. In spite of the difficulties which have been encountered, it seems certain that modern methods of mass production will be utilised much sooner by the present regime than would have been the case under Tsarist Capitalism if it had continued to control the destinies of Russia.

It has already been successfully demonstrated that modern manufacturing plants mechanically capable of turning out mass product can be built with the aid of foreign technicians. The great tractor plant at Stalingrad, which is to have a capacity of 50,000 tractors per year when in full production, was opened and put into operation in June 1930. New railroads, power plants and irrigation projects are constantly being planned, built and put into operation. The first train was run on the newly constructed Turkestan Siberian Railroad almost a year before the date originally planned. During the next two or three years it

¹ Payment for these commodities on the internal market would have been made in paper rubles, however, which would have been worthless to the Soviet Government in paying for purchases made abroad.

² For example, the technical aid contracts entered into with the Ford Motor Company, for the construction of a plant which is to have an eventual capacity of 230,000 cars per year, and the contract with the General Electric Company for the construction and equipment of electrical power plants.

will finally be demonstrated whether or not these great new sources of mass production can be efficiently operated by the present regime. Since a considerable number of new plants have been already constructed, and since such new plants as have been put into operation are being successfully operated, there is no reason to think that further success cannot be achieved.

Soviet statistics show that large-scale State industry increased its productivity by 23.4 per cent. during the economic year 1928-29.¹ According to the plan, the increase in productivity for 1929-30 is to be 32 per cent.² All industry increased its productivity in 1928-29 by about 16 per cent. This compares with a rate of increase in the United States of about 4 per cent. per year. Even after a very heavy discount is made on account of the execrable quality of the goods produced, and to allow for certain other factors, this rate of increase in productivity is significant.³

The evidence seems to indicate that the Soviet industrial system can successfully carry on the production of the masses of manufactured goods which are necessary for the maintenance of a fairly adequate standard of living. At the present time the Soviet system is still far behind the Capitalistic system in industrial efficiency. It is possible that its technical productivity will never have the potentialities of the Capitalistic system. The facts seem to be, however, considered purely from the standpoint of the ability to fabricate goods, that the Capitalistic system has far greater technical potentialities than its system of distribution and of marketing makes it possible to utilise or exploit. The Soviet system, since it is not confronted by the same difficulties in marketing and distributing, is able to increase production very greatly, even though it has not yet demonstrated its equality with the Capitalistic system in the field of purely productive technique.

The capability which the Soviet economic system has shown in providing a constant demand for all the products which its

¹ *Kontrol'nye Tsifry Narodnogo Khoziaistva*, op. cit., p. 26.

² *Ibid.*, p. 80. For the first half of the year the actual rate of increase was 28.8 per cent. *Za Industrializatsiiu*, April 13, 1930.

³ *Recent Economic Changes in the United States*, Vol. I, p. xv. It is obvious that it is much easier to show a large increase in production from year to year if, as is true in the Soviet Union, productive effort is concentrated on producing only staple commodities which lend themselves to the methods of mass production. This results in an acute shortage of all sorts of miscellaneous but very necessary articles, although it facilitates the task of the statistician in showing a very high rate of increase in production.

industrial mechanism can produce is the proud boast of the Party leaders. They point to the present world crisis, with widespread stoppages of production, unemployment, tariff wars and the demonstrated inability of the Capitalistic system to market the amount of product which it is technically capable of producing, as the verification of the Marxian theory of over-production and economic crises. They can claim with truth that the problem of finding a market for their products simply does not exist.¹

The Russian people, and foreign observers as well, are not impressed by this boast of the Party leaders. They point out that instead of the problem of lack of demand for the goods which are produced, the much more serious problem exists of furnishing a supply of goods adequate to fill the minimum needs of the Russian populace. In spite of the optimistic statistics of the rate of increase in production of manufactured goods, the actual fact is that there is a veritable and constant "goods famine." Not only is there a shortage of food, but there is a shortage of almost all manufactured goods as well, in spite of the fact that prices are very high in proportion to wages. It is customary for foreign observers to say that the Soviet Union has no problem of finding internal markets because the productive capacity of industry is so low that the population always needs more goods than it can obtain.

It is well known, however, that the satiation of human wants is not the principal factor which is responsible for the phenomenon of "over-production" which exists in the Capitalistic world. Neither does the still low productive capacity of the Soviet industrial system in relation to the needs of the Russian people account for the freedom of the Soviet economy from "over-production." This pseudo-explanation has, however, obscured the importance of this very real advantage of the Soviet economic system. For it used frequently to be said that one of the almost insuperable obstacles to the successful operation of a Socialistic system would be the difficulty in marketing the products of industry. It is certainly true that the technical apparatus of marketing in the Soviet Union leaves much to be desired. There is a large amount of waste and of general inefficiency in evidence

¹ Of course there is a very serious problem in finding a market for the exports from the Soviet Union. However, these exports are made almost wholly in order to buy goods abroad, for which there is a very pressing need, and which cannot be produced in sufficiently large quantities in the Soviet Union. If the need for these goods was not so pressing, almost all Soviet exports could be advantageously consumed at home. Certainly the export of Soviet products has no connection with any difficulties of marketing these goods within the Union.

everywhere. But inability to find purchasers for the goods produced is not a problem.

Party people claim that they have solved the problem of "over-production" through their establishment of a system of planned economy. This is no doubt true if the term "planned economy" is especially defined. If one imagines that by the system of planned economy production is carefully restricted so as to prevent over-production of certain commodities, such a belief is entirely incorrect. Almost without any exception, every industrial unit in the Soviet Union is urged to produce all it possibly can. By means of "Socialistic competition" and "shock brigades," the whip is laid upon every factory and section in factories to produce to the utmost. It is true, of course, that since the supplies of raw material, mechanical equipment and technical personnel are limited, the process of rationing them out to the different industries does operate, in a sense, to limit the production of some industries in comparison with others. Much has been said about the Five Year Plan, as an example of "planned economy." But the Five Year Plan functions mainly as an objective which every industry is supposed to surpass if it can possibly do so. The original *piatiletka* has been revised in countless items, and again and again, almost always in the direction of increasing the estimates of what each industry is expected to produce during the period.¹ "Planned economy" in the Soviet Union is not primarily the direction of production through limitation, but the direction of production through the device of setting up innumerable general and specific goals. Within the limits of the resources which an industrial unit can obtain production is not limited.

The principal advantage which the Soviet economy has over a Capitalistic economy in the provision of a constant demand for its products is in being able to take immediate and direct action to correct any temporary difficulty in providing a market for production. Another very great advantage which it has is in an economic organisation which enables action to be taken without fear of international repercussions of an unfavourable nature.² If, for example, a situation should arise in which there appeared

¹ For example, during the first year of the Five Year Plan, all industry under the direction of the Supreme Economic Council was to increase its productivity by 19 per cent. This was increased to 21.4 per cent. during the first quarter of the year. The original plan for pig-iron and steel was also materially increased at the same time. *Kontrol'nye Tsifry Narodnogo Khoziaistva*, op. cit., p. 76

² This is made possible by the existence of the state monopoly of foreign trade.

to be insufficient consumer demand to take off the market the products of industry, wages could be raised at once to a degree sufficient to overcome the difficulty, or prices could be lowered, or both means could be used. The Soviet system does not have to wait until competition will have lowered prices, and also incidentally have cut down production. Likewise, the Soviet Government can take direct action to increase the quantity of money and bank credit necessary to pay the increased wages without having to fear some disturbance in the international exchange market which would lower the exchange value of the Soviet ruble, since the Soviet ruble has been divorced from association with the value of gold or of other foreign valuta, and since there is a complete state monopoly of foreign trade.

Planned economy does have its place, of course, since if there should be an over supply of some good which is used as a means of further production, due to the lack of other complementary goods which must be had in order to utilise the superabundant good, the production of the "deficient"¹ goods could be increased during the succeeding period. So also, if the production of building material were to be greater than the demand from the construction organisation in any given year, the building programme would simply be expanded for the succeeding year. There could arise no question of lack of money, for the State could provide very easily for the necessary expansion of money and credit to carry on these operations without fear of inflation, so long as the quantity of money and bank credit was kept in proportion to the increase in the amount of production to be carried on. Furthermore, since the price structure and price level are authoritatively regulated, there does not have to be the same nicety of adjustment between the quantity of money and the amount of money work to be done. When the increase in the supply of money becomes somewhat greater than the increase in the amount of money work to be done, the result often is to necessitate the rationing of the supply of goods, but the value of money does not immediately start on the downward spiral, as is true in similar circumstances in a Capitalistic economy.

Closely associated with the problem of over-production is that of unemployment. Until the beginning of 1930 unemployment in the Soviet Union presented a very serious problem. Not only was unemployment increasing, but the rate of increase also seemed to be rising. The causes of unemployment in the Soviet

¹ This English word has been taken over into the Russian language to apply to those goods the supply of which is so limited as to necessitate rationing.

Union were, however, somewhat different from those which were operative in Capitalistic countries. In the Soviet Union unemployment was not due to inability to sell the products which industry produced. Nor was unemployment primarily technological in character. It is true that in many particular cases unemployment arose because of the rationalisation or mechanisation of particular factories. But the total number of people who find new industrial employment every year is very much larger than the number of workmen who are out of work due to the rationalisation or mechanisation of industry.¹ This is in contrast with the situation in a country like the United States, where the number of people employed in industry actually declined from 1919 to 1928. A good deal of unemployment in Russia was of a temporary nature, which merely involved a transition period from one job to another. Nevertheless, until the spring of 1930 this fraction of the population which was unable to find constant employment was of considerable size. The main cause of unemployment was the drift of population from the village to the city. This movement of the population was aggravated by the generally unfavourable status of the agricultural population. In particular, the operation of the "scissors" which represented the spread between the prices of agricultural and manufactured products tended to stimulate the city-ward migration. The unemployed mass was partially composed of these ex-peasants, and partially of workmen who would have found employment if these former peasants had not been added to the labour supply. This urban migration simply increased the number of labourers faster than the Soviet economic system could find capital equipment with which to provide productive employment for them.

At the present time, however, the Soviet system seems to have reached the point where it can provide employment for the displaced peasantry. It has been possible to do so, partly on account of the new capital equipment which has been put into operation, which employs a much greater number of labourers than it has displaced through its labour-saving qualities. A still greater number of labourers have found employment in the construction of new capital equipment, such as factories, irrigation works, power dams and railroads. During the last two years the Soviet Government has definitely cast aside the idea of a gold-

¹ The number of workers in industries controlled by the Supreme Economic Council increased 7·8 per cent. from the economic year 1927-28 to the economic year 1928-29 (*Kontrol'nye Tsifry Narodnogo Khoziyatva*, op. cit., p. 505). For all industry the rate of increase for the year was 6·9 per cent. (*Kontrol'nye Tsifry Po Trudu Na*, 1929-30 *God.*, p. 155).

supported currency, and, as a result, is no longer limited to the same degree as formerly in finding funds with which to pay the services of labour. The Soviet economic organisation has gone over pretty definitely to the policy of disregarding purely monetary limitations upon the expansion of production and the construction of productive equipment. This does not mean that the dangers and disadvantages of over-issue are not recognised. Instead, every nerve is strained to keep the issue of money and the expansion of bank credit down to the lowest possible levels consistent with a policy of expanding production and construction up to the limit of labour, raw materials, capital equipment and technical personnel necessary for such expansion. Pressure from the Party upon the officials of the money and banking system is so great that there is no doubt that this policy has resulted in a greater expansion of the volume of money than would have been recommended by the technical personnel of the State Bank and the Commissariat of Finance. It is probable, nevertheless, that it has actually proved feasible to expand construction and production much further than the financial personnel would have agreed to do had they been free to make the decision. The experience of the Soviet economic system in this respect is of the greatest importance in respect to the possibilities of a "managed currency."

As a result of the new policy of maximum expansion of constructive enterprises, there was an actual shortage of construction labourers in the spring of 1930.¹ It is possible, of course, that one result will be an accentuation of the problem of seasonal unemployment. In point of actual numbers of unemployed persons, complete data, if they were available, would not be particularly favourable to the Soviet system. The available statistics do not include the millions of persons who make up the great "deprived" classes. Much the greater number of these persons, among whom are included the *kulaki*, are not registered on the labour exchanges. This type of unemployment is punitive in character, however, and has little relation to the general problem of unemployment. It must be admitted that statistical data so far available do not prove conclusively that the problem of unemployment has been solved in the Soviet economic system. The number of unemployed has decreased only during a period

¹ The shortage of construction labourers became so acute that it was necessary to issue a special circular under the joint authority of the Commissariats of Labour and Agriculture, the Supreme Economic Council and Kolkhoz Centre for the purpose of increasing the supply of seasonal workers from among the peasants (*Za Industrializatsiiu*, March 4, 1930).

of less than a year. With the huge numbers of peasants whose labour will no longer be necessary in agriculture when the process of nationalisation of the land and rationalisation of agriculture has been completed, the industrial apparatus of Russia must absorb enormous numbers of former peasants. For the reasons stated, however, it is the opinion of the writer that the Soviet economic system can find employment for increasing numbers of workers to an extent which would be impossible in any Capitalistic country at the present time.

It is too early to assess the results of the collectivisation of agriculture, in spite of the fact that the future of the entire Soviet economic system depends upon the success of collectivisation. If collectivisation fails, it seems certain that the whole economic structure will crash in ruins. It does not seem probable, however, that failure will occur. If the harvest of this year is reasonably successful, it appears certain that collectivisation must be considered to have succeeded. Although it has been carried through in the face of the most bitter opposition of the vast majority of the peasants, the fact remains that it has progressed at a rate which no one considered possible previous to the autumn of 1929. If famine is avoided this year, when the difficulties which had to be met were greater than they are liable to be again, the end of peasant husbandry in Russia is a matter of only two or three years. The experimental data which will be available to the agriculture of the world if collectivisation is successful in Russia will be of incalculable value. No Capitalistic country could afford to disregard these data, even though the agricultural system which will be established in Russia would probably be unacceptable to the rural population of Capitalistic countries.

The labourers' standard of living in the Soviet Union remains extremely low.¹ The standard of living of the peasant is still lower. Indeed, the standard of living of the industrial proletariat, who gained most from the October Revolution, is, at the present time, very little, if any, better than it was in pre-war times. The standard of living of the peasant is lower than it was before the Revolution, and the standard of living of the intelligentsia is, of course, very much lower. This means that, in spite of the fact that no share of the national income has to be paid any

¹ The average wage of all workers in industry for 1928-29 was 835.6 rubles per year (*Kontrol'nye Tsifry Po Trudu*, *op. cit.*, p. 170) (one pound sterling, equivalent officially to 0.458 rubles. In actual purchasing power the ruble is worth much less than this rate of exchange would indicate).

longer to landlord and capitalist, the average standard of living of the Russian people is lower than in pre-war times. How, then, is it possible to explain the discrepancy between the optimistic statistics of the rate of increase in production and the very low standard of living which exists?

As has been said, the productivity of Soviet industry must be heavily discounted to allow for the extremely low quality of the product. During the last couple of years, when statistical data show such large increases in the productivity of industry, the already low quality of product was being lowered still further.¹ The very large proportion of the national income which is saved for purposes of the expansion of capital equipment also finds practical expression in the more rapid expansion of the heavy industries which produce the means of production than of the light industries which produce goods for direct consumption. The export of food products to pay for mechanical equipment is still another aspect of this capital saving which effectively lowers the standard of living.

The factor which has been most directly responsible for the low standard of life, however, is the exceedingly unfavourable experience of the Soviet system on the agricultural front. Under the present regime the huge pre-war exports of grain have been replaced by deficits in the supply of foodstuffs, which have reached famine proportions. The unfavourable agricultural situation has reacted on industry, where the supply of raw materials in such industries as the textile and food industries has not only been responsible for low productivity, but also for poor quality of product. If and when the agricultural problem is solved, the effect upon the standard of living will be most marked. In the opinion of the author, if the harvest is fairly good in the Soviet Union this year, in the course of the next decade the standard of living of the manual labourer in the Soviet Union will compare favourably with that of the manual labourer in the Capitalistic countries of Europe.

It is probable that the standard of living in Russia will never reach a level of comparative luxury such as that attained by the bourgeoisie in Capitalistic countries. Even if the productive mechanism of the Soviet system were to become efficient enough to make this possible for the wide masses of the population, such

¹ Complaint of the poor quality of production is universal. The Press carries on a constant campaign against the poor quality of industrial products, and numberless examples of wretched quality are cited. The lowering of quality during the first year of the Five Year Plan in many branches of industry is referred to on page 26, *Kontrol'nye Tsifry Narodnogo Khoziaistva*, op. cit.

a standard of living would be repugnant to the spirit of Communism. Under the regime of Russian Communism there will never be any artificial stimulation of desire through advertisement, nor will the desire to emulate the "leisure class" operate to create a standard of living which would include non-essentials. It is possible, therefore, for the Soviet economic system to provide the economic basis for an optimum Communistic standard of life much sooner than might be thought. Simple food, communal housing, proletarian club-houses, plain clothing, motor transport, short hours of labour, vacations at State recreation houses, may be taken to represent the final goal of Communist effort in terms of standard of living. Such a goal is no doubt wholly unacceptable to the bourgeoisie, the intelligentsia, the greater part of the agricultural population and even the upper strata of the working classes of the Capitalistic world. It is probable, however, that it would have a powerful appeal to the most poorly paid and most unintelligent 50 per cent. of the population of the Capitalistic world.¹

If it be said that the Soviet system has greater possibilities in respect to its productivity than is usually realised, it must be admitted that in respect to the psychological and intangible possibilities of the system the record is not an encouraging one. The philosophers who first created ideal social systems constructed them as Utopias, not where men would produce more goods, but where men could live the ideal life. In these Utopias, the evil which finds expression in the lives of men was to be exorcised by the new conditions of life. In Utopia, meanness, pettiness, greed, envy and bitterness were to disappear. In Utopia man would at last be free. In spite of the fact that Russian Communism recognises Marx, who was contemptuous of Utopianism, as its spiritual father, there are many Communists all over the world who think to find in Soviet Russia Utopia realised.

But one must admit that Soviet Russia is further removed from Utopia than is the Capitalistic civilisation. In Soviet Russia there is not less bitterness, but more. Communism has not brought peace to Russia, but instead a sword. Some part, at least, of the energy which men of ability in the Capitalistic world expend in amassing wealth is in Soviet Russia canalised in the struggle for power. Within the State Trusts and Commissariats, within the Party, the struggle for power is sharper than within the

¹ It is not maintained, of course, that the most poorly paid and the most unintelligent 50 per cent. of the population are an identical group.

institutions of Capitalism. The orthodox Party member of to-day finds to-morrow that his orthodoxy has been successfully attacked by a fellow Party member who hates or fears him, and he is ruthlessly expelled from the Party. The institution of the "*chistka*" or "cleaning" has been evolved, and is used in every institution in Russia to give full rein to suspicion, envy and sadism.

Never in history have the mind and spirit of man been so robbed of freedom and dignity. It is not merely that academic freedom, freedom of speech, freedom of the Press, and freedom of thought are forbidden. The Party is not content with mere abstention from unauthorised action. Men must publicly deny their real thoughts and feelings. Nor is the matter so simple that it is possible to embrace a set of beliefs and principles and thereafter feel that one is safe within the precincts of orthodoxy. When Stalin was fighting the Trotskist Left it was the orthodox thing to belittle the *kulak* danger and to favour a policy of conciliation toward him. Two years later the *kulak* is branded by Stalin as the primary danger, and he must be liquidated as a class. The writer once attended a Party "*chistka*" in which a woman member who was being "cleaned" was asked to explain the Bukharinian heresy. The continuous questioning had worn the woman's nerves almost to the point of hysteria, and she cried out, "One day I am told that the views of Bukharin are exactly right. Now I am told that they are all wrong. How am I to know?"

The policies of Bukharin, Tomsy and Rykov are branded as heretical. They are warned that they must recant. They are forced to the humiliation of public recantation,¹ but even this is not enough. The supporters of Stalin demand that they must abase themselves still further.

An engineer is arrested by the G.P.U., charged with *vreditel'stvo*,² and is shot. His son is a Party member. He is ordered to sign a statement that he approves of the execution of his father. He refuses, and is expelled from the Party. Never before has the human soul been so placed in bondage.

Has the new order of life in Russia resulted in a new brother-

¹ See the text of their recantation in *Ekonomicheskaya Zhizn*, Nov. 26, 1929.

² This word is used to express any secret attempt to hamper the work of the Soviet Government or any of its organs. For example, a professor of economics who was an expert attached to *Gosplan* was accused and convicted of *vreditel'stvo* on the ground that he had not planned a sufficiently large production of pig iron. A professor of engineering was convicted of this crime on the ground that he had stated the coefficient of expansion of steel incorrectly in a text-book which he had written, in order to cause the boilers of the engines which would be built by his students to explode!

liness in the relations of man to man? The struggle for power among those who have been able to obtain positions of importance has been mentioned. It cannot be said, moreover, that the attitude of those in power towards their subordinates is any improvement over the attitude of persons similarly placed in the Capitalistic world. It is true that the workers themselves are pampered and petted *as a class*. They certainly fare better than any other class in the Soviet Union. But the office-workers, the clerks and "white-collar workers" are only one degree better off than the "deprived" classes, who are openly branded as enemies of the Soviet Power. The same thing is true of the old intelligentsia who took service under the Bolsheviks. They are ordered about by the former proletarians who have been placed in executive positions, and who are thus able to feel a sense of their new importance. The "white-collar" workers, such as stenographers, clerks and bookkeepers, are members of trade unions, but their union organisations are without power or influence. They are discriminated against in many ways. They are the new "proletariat" of the proletarian State.¹

Nor can one say that there is any evidence of increased brotherliness among the industrial workers. Certainly there is never any evidence that the form of address "Comrade" has any real significance. The crowded street-cars in Moscow naturally do not afford a fertile field for the growth of friendliness to one's neighbours. Yet one cannot fail to be struck by the general air of irritation and ill feeling which is so prevalent. One rarely sees a smile or hears a laugh. Partly this is due to the food shortage, which makes life so hard in the Soviet Union at the present time. But the sense of tension and of repressed anger seems due to other causes also.

It is not merely in the villages that the class war is constantly preached. It is impossible to believe that with the liquidation of the *kulaki* as a class this incitement to class hatred and struggle will come to an end. The miserable remnants of the former bourgeoisie and other "former" privileged classes are still the objects of relentless persecution thirteen years after the October Revolution. Militant hatred has become perhaps the most outstanding spiritual characteristic of Russian Communism.

It must not be forgotten, however, that to perhaps a majority

¹ A member of this class in the Soviet Union is referred to by the word *sluzhashchii*, in contrast to a member of the class of manual workers, who are referred to by the word *rabochii*. The line between the two classes is quite sharply drawn, and every one is very anxious to be classed as the latter rather than the former if it is at all possible to be so classed.

of the inhabitants of the Capitalistic world, academic freedom, freedom of speech and of the Press are words only, whose importance is little understood. Probably the greater part of the labourers in Soviet Russia do not feel that they are deprived of freedom in any way. As long as a man does not attempt to rise out of the mass of labourers there is little curtailment of freedom of a sort which the ordinary worker would feel. The urban proletariat in the Soviet Union have been extremely dissatisfied during the last year, on account of the food shortage and on account of their close connection with the village. But they have not been dissatisfied because of restrictions upon their freedom, nor on account of the failure to attain the psychological conditions of Utopia.

The significance of this to the coming struggle between Communism and Capitalism should not be overlooked. When and if the time comes when a higher standard of living in terms of the elemental creature comforts can be offered by Communism to a large proportion of the labouring class in Capitalistic countries, a very serious situation will arise. The intelligentsia may then be confronted by a serious dilemma. Will the intelligentsia have the iron will to help the Capitalist to keep this lower class suppressed at such a time? Or will the intelligentsia stand aloof in the struggle, knowing that if Communism wins, their doom is certain? Only if Capitalism succeeds in so improving its technique that it can continue to give a better standard of living to the lower levels of its workers, will this dilemma be avoided. These improvements must be in the technique of marketing and distribution rather than in production, and the Capitalistic order may be forced to take advantage of the experimental data which the Soviet system has produced and will doubtless produce.

One of the characteristic features of the Soviet system has been the lessening of the intensity of the economic struggle of the individual. Although the struggle for power is more intense than in the Capitalistic world, the great mass of the people do not feel the bitter necessity of safeguarding or improving their individual economic status, either by saving or by increasing their earning capacity through advancement to more responsible posts. Communism is extremely scornful of the individual who practises the petty bourgeois virtues and attempts to build up a comfortable living for himself and his family. The worker is expected to seek improvement in his economic position only as the class to which he belongs improves its status. The engineer

and technician are expected to hold themselves in readiness for transfer from one part of the country to another on short notice, and at the same time serious efforts are made to prevent the earnings of this class from rising high enough to enable its members to ape bourgeois standards of life. In this way no one is permitted to build up a home which can be considered permanent, and on which the individual might be tempted to spend too much time and expense. As a result there is a very noticeable lack of social competition or emulation of the sort which is comprehended in the American colloquialism "Keeping up with the Joneses." Furthermore, the future is too uncertain, even in the case of Party leaders, to encourage any attempt to set up a household upon the bourgeois model. The dissolution of the family as a social unit has also operated to destroy any pride of family which might cause the individual to be concerned about building up economic safeguards against the future. Not only is it impossible to amass wealth in the Soviet Union, but the whole manner of life under the New Order tends to neutralise human craving for wealth.

The system of social insurance in Soviet Russia has not yet developed to equality with that of the more advanced Capitalistic countries such as Germany, and is not, therefore, the major factor which has been responsible for lessening the sharpness of the economic struggle. This backwardness has not been due to any failure to appreciate the value of social insurance, but simply on account of the general poverty of the country, which has placed severe limits upon what could be done. The system is being extended, however, and the certainty that everything possible will be done to broaden and strengthen the system is a factor in lessening the sharpness of the economic struggle. No doubt the experience with depreciated paper currency has also been a factor in discouraging saving, and likewise in causing the general unconcern about the future which is so characteristic of the economic life of the individual. It has been no small triumph of Communism that it has partially at least substituted interest in the success of the Five Year Plan for interest in the economic success of the individual.

It must be admitted that the foreign observer feels that life has become a dreary thing indeed, when it has been placed on such a level. The Communist retorts that this is purely bourgeois prejudice. The economic struggle may give zest to life for those who are successful, but it offers no compensations to the vast majority who fail in the struggle to "get ahead" financially, and

who instead are always confronted by the threat of economic disaster and by the difficulty of meeting day-to-day needs.

The creation of a system of life which has displaced the money standard of measurement for even the moral and subjective values which exist in bourgeois civilisation must be registered as a distinct contribution to human welfare. While it is true that the struggle for power has in many ways replaced the struggle for money, this fact does not entirely destroy the value of this element of the Soviet system. In Soviet Russia men do not devote their time to money-making activities in order to ape the standards of living of a wealthy leisure class. The servility which is induced by the desire to obtain monetary rewards has almost disappeared. The State employee in a retail shop is not particularly interested whether the customer makes a purchase or not. He does not, therefore, either fawn on the customer or subject him to high-powered salesmanship. He does not address the customer as "Sir" and pretend that the customer is a superior order of being. This has serious disadvantages from the customer's standpoint, no doubt, but the spiritual advance which is registered cannot be gainsaid. Waiters in restaurants, employees in hotels, and other workers who render personal service, including household servants, have also lost both the servility and the false "Happy-to-serve-you-sir" attitude which is so characteristic of similar workers in the Capitalistic world. Tips are still accepted in Soviet Russia, but Russians rarely give them. The foreigner customarily does, but he cannot usually purchase servility by so doing. Some of the old cabmen will still address a foreigner as *Gospodin*¹ or *Barin*,² in the hope of getting a tip, but this is not usual. Tips are sometimes refused, even when offered by foreigners. Tipping is an alien element in the Soviet system of life, which is rapidly disappearing.

Private wealth, of course, hardly exists in Soviet Russia, and in consequence there is no class which has a special position on account of wealth ownership. Power, influence and authority are not accorded to fools, incompetents and mediocrities in the Soviet Union simply on account of the fact of possession of wealth. Fanatics, toadies and bullies do attain power in the Soviet system, and, in the case of the fanatics at least, much more frequently than in the Capitalistic world. One cannot but hail, therefore, the destruction of wealth as the universal standard of all values, while recognising that the transfer of power to the dominant

¹ "Sir."

² "Gentleman."

group of leaders in the Communist Party from the owners of wealth has not yet been shown to be a change for the better.

When men have thought, or spoken, or written of Soviet Russia it has almost always been assumed that the Soviet economic system would be successful because Communism was innately good, or that the Soviet economic system would fail because Communism was innately bad. Men have rarely realised that the economic system might not be technically successful, even though the ultimate ends of the Communist Party might represent an important forward step in human progress. Still less have men considered that the subjective values of Communism as they are realised in Soviet Russia could be inferior to those of bourgeois civilisation, while the economic system could at the same time be technically successful.¹ Men have thus viewed the economic as well as the moral and ethical value of the Soviet system from the theological standpoint. The good must endure and the evil must perish. It may be that at long last events do so fall out. At least it is a comfortable attitude to maintain towards events which are occurring in the Soviet Union. But for the present, it must be recorded that although the Soviet civilisation is further removed from the Utopia of the philosophers than is the civilisation of Capitalism, the Soviet system nevertheless has possibilities of economic success great enough to constitute a threat to the future of Capitalism.

Unless the Capitalistic world can utilise the experimental data which are being worked out in Soviet Russia to strengthen itself against the day when Communism, supported materially and spiritually by success on the economic front, registers its first conquests outside of Russia, the only real question may be whether the World Revolution spreads first towards Berlin or towards Bombay. Communism strains every nerve to copy the enviable features of the productive technique of Capitalism. Capitalism may find itself forced to learn some lessons from the Soviet system if it is to be the conqueror in the coming world struggle.

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¹ J. M. Keynes approaches the same idea from another angle when in his *Laisscz-faire and Communism* he asks what constitutes the essence of the New Order in Russia. Is it merely a purely materialistic and technical improvement over Capitalism, or is it a new way of life?

THE IMPORT OF GOLD INTO FRANCE

AN ANALYSIS OF THE TECHNICAL POSITION

THE apparently insatiable demand of France for gold has become ominous, for, by threatening the easy conditions in world money markets, it strikes at the only hopeful element in the present situation. If the formidable and ever-increasing size of the French balances abroad is taken into consideration this growing uneasiness is not difficult to understand. The anxiety created by these gold movements finds expression in criticisms of the French Government and the Banque de France. Though this feeling is not shared in responsible circles, it has been given wide publicity and has aroused considerable comment on the Continent. The charge that the French Government is purposely following a policy calculated to weaken the position of London has been countered by equally unfounded hints in the French Press, suggesting that the fluctuations of the exchange rate on London were the consequence of the concealed abandonment of the gold standard. An investigation of the relevant facts may, therefore, prove useful.

It has been contended that France or the Banque de France sterilises gold. This gives rise to misunderstandings, since wilful action is implied. Whilst a banking or currency system may be called uneconomical in its use of gold ¹ (and therefore dangerous), the expression "sterilisation of gold" should only be used if a central bank deliberately tries to neutralise the effects of the inflow of gold. As we shall show below, the Banque de France can only be charged with this if the gold inflow is caused by the conversion of its foreign exchange holdings. No such transactions, however, have taken place this year, and they have occurred only to a limited extent in previous years. It appears, therefore, that those who make the charge of wilful hoarding mistake for conscious tactics the shortcomings of the French banking system and of the gold standard in general.²

¹ V. Nogaro, "Le nouveau régime monétaire français," *Revue d'Écon. Intern.*, 1929, pp. 215-20. The fallacies which lead to excessive gold reserve requirements cannot be discussed here.

² Especially by disregarding the time element necessary in the working of the "automatism" of the gold standard. Since gold imports also serve for payment of a credit balance, the problem of securing internal stability without "deflating" other countries may become serious. (See, Taussig, *International Trade*, 1928, p. 197.) It seems as if internal open-market operations cannot be expected to guard adequately against this danger.

To elucidate this point we must analyse the French balance of international payments during the years 1928 and 1929.¹

(In million francs.)

	1928.		1929.	
	+ Items.	— Items.	+ Items.	— Items.
Balance of Trade ²		4,480		10,000
Freight charges and earnings	+ 3,150		+ 3,100	
Assurance and transit	+ 500		+ 500	
Remittances of immigrants		— 2,200		— 2,500
Tourist trade	+ 7,500		+ 8,500	
Interest on private and public foreign holdings	+ 3,500	— 1,200	+ 6,300 ³	— 700
Interest and sinking fund payments of the Government		— 600 ³		— 600
Repayment of foreign Government debt		— 2,208		— 2,237
Reparation payments	+ 5,180		+ 6,700	
Visible long-term capital movements	+ 167	— 579	+ 200	— 1,100
Foreign exchange purchases and sales:				
(a) of the Government		— 3,768 ⁴		— 1,459
(b) of the Bank		— 7,140	+ 6,576	
Gold		— 6,140		— 8,505

These estimates can only be used with caution ⁵ and I have abandoned a balancing of the two sides which Meynial has put forward by means of an estimate of invisible capital movements. Nevertheless, a study of the comparatively accurate figures is valuable. The most interesting aspect of this comparison is that France was not only able to lend in 1928 on short term 11,000 millions in a traceable way, but also to import an additional

¹ *Revue d'Économie Politique. La France Économique*: P. Meynial, "La balance des Comptes," 1929, p. 292, 1930, p. 470.

² Adjusted for the balance of trade with the colonies and dependencies and for the balance of trade of these territories with foreign countries.

³ Corrected figure. *Ibid.*, p. 474, and below.

⁴ The Treasury reports its holdings of foreign exchange as being: 4,059 million francs at the end of 1927; 7,827 at the end of 1928; and 9,286 at the end of 1929. The interest on this stock is included in the item "interest."

⁵ Meynial's lack of accuracy strengthens this scepticism. He gives, *loc. cit.*, p. 479, the figure of + 6,700 — 2,237 = + 4,463 for the balance of Government capital payments, on p. 476 he gives an additional — 600 for foreign interest and sinking fund service. On p. 482 the interest charge is left out altogether and the capital movement appears to be + 4,700. It is not clear, moreover, how he arrives at the figure of 5,500 millions for interest by deducting (pp. 474–5) 700 from 6,500 (the latter being also wrong, since 500 + 1700 + 4,100 is evidently only 6,300). On p. 482 the excess of gold imports is given as 915 million *new* francs. The excess was (Royal Commission on Indian Currency and Finance: Evidence, p. 290) about 99 million dollars, which equals about 2,475 million post-war francs.

6,140 millions of gold. This formidable amount of 17,140 fell in 1929 (if the gold imports caused by the liquidation of foreign balances held by the Banque de France are left out) to about 7,000 plus 1,929 millions. This fall was presumably caused by the increased unfavourable trade balance and by the termination (or diminution) of the repatriation of French capital. It may, however, be worth noting that at the end of 1929 the stock of foreign exchange of the Bank and the Treasury still amounted to $9,286 + 25,948 = 35,234$ million francs.

The increase of the import surplus¹ supports the view that the basis of stabilisation was too low,² and that through the "automatism" of the gold standard (*i.e.* gold movements—price changes—alteration in the balance of trade) an equilibrium of the balance of payments is now being brought about. This equilibrium is conceived as being the state of affairs when the trade balance compensates all the other factors without the material intervention of gold movements. These merely act as intermediary factors bringing about the "real," "final" compensation by payment by goods. This is the view which holds that any gold import which does not bring about an *adequate* price movement is "sterilisation."

As a matter of fact, however, the course of foreign trade in the present year (coupled with the fall of the French price level in spite of there being no change in the visible monetary factors) conclusively proves that no restoration of the "equilibrium"—in the above-mentioned sense of the word—can be expected. The import surplus fell during the first four months this year—although French prosperity continued—from 3,965 to 3,005 million francs. Thus it seems pretty clear that the elasticity of demand for foreign goods is not strong enough to counteract the close connection between the prices of goods which are and are not the object of international trade, and this connection makes a balancing of international payments through an appropriate change in foreign trade impossible.³

It is this phenomenon, so well known from the example of the United States,⁴ where, of course, the high tariff unfavourably influences the elasticity of the demand for imports, which makes

¹ The balance of trade in 1927 showed an export surplus of 2,372, or, adjusted for the colonial trade, a passivity of only 304 millions. *Revue d'Économie Politique*, 1928, p. 436.

² André Thiers, *La revanche du franc*. Paris, 1930.

³ A possible hoarding explains some points because it is an "absolute" saving.

⁴ V. M. Palyi, "Die Zahlungsbilanz der Vereinigten Staaten von Amerika als Gläubigerland," *Schriften des Vereins für Socialpolitik*, Vol. 174.—III.

the French a "born creditor nation."¹ We have to accept, therefore, also in the French case the *ignoramus* which Prof. Taussig pleaded with respect to the mechanism which produces an equilibrium in the international payments of the United States,² or the conclusion of Prof. Angell,³ that the balance came about, not as a result of the influence of intelligible forces, but seemingly by "accident." Since, however, this "accident" involves a constant drain on the gold reserves of the world and threatens disturbances of the first order, and since this can only be brought to an end by appropriate central banking measures,⁴ it is clear that—instead of discussing whether or not a "natural" development causes the gold movements—we should try to evolve a system which without causing any artificial inflation will check the undesirable results of the peculiar behaviour of the French balance of payments. We must, therefore, proceed to an inquiry into the monetary factors involved.

The study of the balance of international payments clearly shows that the accusation that the French have willingly and consciously "hoarded" or "sterilised" gold does not hold for the greater part of the gold imports. A "sterilisation" only took place in 1929–30 with respect to the 6,576 million francs⁵ which the Banque de France obtained by converting its foreign exchange stock through direct gold imports and with respect to the sales of foreign exchange effected to avoid a gold export. In respect of this gold import (or non-export) a "sterilisation" really took place. The import of gold did not and could not serve for any extension of credit. Since June 1929, however, the Banque de France has not attempted to liquidate any of its holdings. The bulk of the gold which was imported could have had its effect on prices and on foreign trade. If it has not, this cannot be explained by any charge of "sterilisation," but by the apparent inadequacy of the mechanism of the gold standard to bring about the desired

¹ V. the testimony of M. Pallain, Governor of the Banque de France before the National Monetary Commission, U.S. Senate Doc. No. 405. 61, Congress. 2nd Session, p. 216.

² *International Trade*, pp. 330–34.

³ "Equilibrium in International Trade, the United States," 1919–26, *Quarterly Journal of Economics*, 1928, p. 388.

⁴ The only factor which is manageable.

⁵ To this amount the accrued interest of its foreign balance, approximately 1,000–1,200 millions, has to be added (4–4½ per cent. on an average holding of 25,000). The conversions in the autumn, 1928, were but 860 millions. From a strict point of view the liquidation of the balances of the Treasury cannot be called sterilisation, since the proceeds are used in France. *Comptes rendus de la Banque de France* for the year 1928, p. 18, and 1929, p. 4.

equilibrium and by other phenomena which counteracted the effects of the inflow of gold.

Some distinguished authorities think that a continued drain on the gold reserves of the world can be avoided if the French make use of their splendid financial position and build up an international money and capital market which would take care of the favourable surplus balance of international payments. Quite apart from the fact that this would not bring relief quickly enough, there are other objections to this suggestion. It could only provide a mitigation of the present anomalies if the recent gold movements are the result solely of the lack of capital-export and of the tendency of French owners of foreign balances to liquidate their assets and convert them into francs.¹ If one considers the French pre-war imports of gold bullion this view seems to lose its justification. Notwithstanding the heavy capital export of the pre-war period, France never found it necessary to export gold. On the contrary, the excess of gold imports were of an appalling magnitude ² in millions of dollars :

1900	. 64	1903	. 36	1906	. 52	1909	. 35	1912	. 42
1901	. 55	1904	. 103	1907	. 56	1910	. 11	1913	. 99
1902	. 61	1905	. 125	1908	. 102	1911	. 24	1914	. 149

It may be objected that before the war France had a gold specie circulation and that a tremendous though unsuspected hoarding of gold was going on, which is not the case now. This objection does not hold. If the gold imports into France at the present time are due to the need of the French banks to strengthen their reserve positions (because, for instance, of hoarding of paper money)—a view which is held by the same authors—the problem is still the same, and increased foreign lending sufficient to absorb the favourable balance entirely is not possible. The building up of a broad international credit market may mitigate the immense potential dangers of the huge and ever-increasing French short-term balances, but will not reverse the gold flow.

The preliminary problem is, therefore, to determine whether or not the demand for gold is a demand for currency or represents the accumulation of a potential reserve due to lack of foreign

¹ In such case the French banks, if they do not want to assume excessive exchange risks (*i.e.* go short on francs), must convert those assets into francs, and cannot step into the breach by holding them for their own account, giving the former owners credit in francs. This conversion causes an appreciation of the franc, and a gold import, since franc exchange, as the balance of payments shows, is not forthcoming.

² Royal Commission on Indian Currency and Finance : testimony of the American experts, p. 290.

lending by the depositors which the banks do not venture to do on their own account.

If we remember the factors which influence the reserve requirements of the credit banks ¹ we can point to certain indications which may help us to answer this question. The interpretation of continental bank balances is always difficult, since one never knows what items are included under the several headings. In spite of this difficulty an analysis may indicate certain trends. If the banks had not been prompted to import gold to meet the actual needs of their reserve positions, an import of gold would show (if the short-time foreign loans are not included in the item "espèces en caisse, en banque et coupons," which they probably are not) a heavy increase of their cash along with an increase of their liabilities.² In this case the cash ratio would be increased. If, however, gold imports arose from loss of reserve, we should find that in spite of the imports the cash will not have correspondingly increased, or will have decreased. The volume of deposits, of course, will show the same movement.

The actual figures are as follows (in million francs) :

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	Cash and coupons.											
1930	2-812	2-797	3-225									
1929	2-710	2-668	2-605	2-390	2-626	2-559	2-813	2-527	2-356	2-342	2-315	2-827
1928	3-718	3-218	2-999	4-024	5-148	3-263	2-750	2-893	2-161	2-632	2-460	2-735
	Deposits and creditors in current account.											
1930	34-888	35-265	35-205									
1929	35-732	36-154	34-881	34-248	34-420	34-400	33-669	32-811	33-119	34-605	31-200	34-065
1928	27-834	27-709	28-463	30-246	34-884	33-876	34-447	33-971	33-541	34-171	34-573	35-372

The deposits and the reserves of the banks not only do not show any increase as a consequence of the import of gold, but an actual decrease. The same is true of the reserve ratios.

The Reserve in % of Deposits.³

1926 :	I.	14	1927 :	I.	18	1928 :	I.	20	1929 :	I.	15
	III.	14		III.	27		III.	18		III.	14
	VI.	15		VI.	40		VI.	18		VI.	14
	IX.	15		IX.	31		IX.	16		IX.	14
	XII.	16		XII.	23		XII.	18		XII.	14

While in the year of actual stabilisation the foreign exchange sales had the expected "glutting" effect and the reserve ratio

¹ For our purpose an analysis of the statements of the four big joint stock banks (Sociétés de Crédit) is sufficient. Not only do these great institutions handle far the greatest part of the country's credit, but only they give monthly statements. Moreover, it is probable that changes in their accounts are typical of those of the Banques d'Affaires.

² Or a decrease of balances with correspondents.

³ Jean Loriot, "Les Banques," *Revue d'Economie Politique*, 1930, p. 512.
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increased rapidly, the data of the last two years show a decisive downward trend. The fact that banks tried to foster the development of the inter-bank clearings in order to be able to reduce their balances at the central bank is a significant sign of pressure.¹

The increase of the gold stock of the nation did not augment the cash of the banks, thus making a credit expansion possible, or, if it did, the liquidation was much heavier: the existing deposits became more active,² and therefore a greater proportion of them had to be paid out in cash. It seems, therefore, as if the need for cash was the primary, the gold import the secondary development.

The next question which arises is, what became of the original cash-reserves of the banks? What caused the need for additional cash?

Let us inspect the first of the possibilities: the circulation of the bank-notes of the Banque de France: ³

(Monthly averages in million francs.)

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.
1930	68-407	68-623	70-189	71-123								
1929	62-983	63-023	63-515	63-231	63-416	63-630	64-410	65-212	65-802	66-992	67-021	67-479
1928	57-879	57-922	58-747	59-758	59-633	59-466	60-190	61-065	61-635	61-819	61-956	62-269
			End of May 1930	.	.	.	.	.	73-079			
			June 1930	.	.	.	.	.	72-591			
			July 1930	.	.	.	.	.	72-110			
			August 1, 1930	.	.	.	.	.	74-008			

The increase was uninterrupted and amounted on the average to about 500 million francs a month. It may be worth noting that in the first few months of 1929 it was very slow and that now, after the rather rapid increase in the last month of 1929 and the first months of 1930, it shows a relative stability fluctuating around 72,000 millions.⁴ If the changes in the second very important factor are taken into consideration the picture becomes clearer.

¹ "Le marché monétaire et les changes," *Revue d'Écon. Pol.*, 1930, p. 480.

² The cause of this activity was probably the increase of security issues which transferred hitherto "unused" deposits to the entrepreneurs, who paid them out in the form of wages.

³ The gold reserve of the Banque de France (in million francs):

1930	42-676	42-924	43-614	42-342								
1929	33-592	31-022	31-086	31-850	36-512	36-611	36-849	38-558	39-127	39-845	40-566	41-359
1928	"	"	"	"	"	28-962	29-540	30-265	30-529	30-730	31-054	31-793
			End of May 1930	.	.	.	.	.	43-809			
			June 1930	.	.	.	.	.	41-052			
			July 1930	.	.	.	.	.	45-283			
			August 1, 1930	.	.	.	.	.	46-061			

⁴ In the first weeks of August there was again an increase of about 2,000 million francs.

Balance of the Treasury and the Caisse ¹ autonome at the Banque de France (in million francs).

1930	. 10-803	9-575	7-698	6-475															
1929	. 12-263	12-508	11-487	11-742	11-624	11-437	11-927	13-423	13-771	13-238	13-770	12-672							
1928	. 6-556	4-664	3-979	3-548	3-326	4-343	7-903	10-125	10-678	11-608	12-766	12-574							
			End of May 1930	.	.	.	.	.	.	5-363									
			June 1930	.	.	.	.	.	.	4-937									
			July 1930	.	.	.	.	.	.	9-132									
			August 1, 1930	.	.	.	.	.	.	8-900									

If one compares the two series it seems to be convincing that an abrupt and heavy disbursement of public funds—primarily caused by the redemption operations of the Caisse—almost always brings about an increase of the note circulation. This phenomenon gives the impression that a hoarding of currency is going on. If this be true, a further almost unlimited currency demand is impending and the prospects for any improvement are rather gloomy. There are, however, other factors to consider. First, one must not forget that the French inflation, like every other one, considerably decreased the aggregate real value of the volume of the media of exchange. The aggregate currency circulation (including the gold specie in circulation) amounted before the war to 12,000 ² million pre-war francs. The real value of the circulation in 1926 was but 7,000 million pre-war francs. If we take into account the increase in the territory and production of France as contrasted with the pre-war state of affairs, a circulation of 70,000 million new francs does not seem to be excessive. A building up of "till"-money cannot be regarded as simple "hoarding," because it is found to be completed in due course. The interesting fact that the cost of living not only did not, like the wholesale prices, show any decrease, but

¹ The autonomous Caisse was founded by the constitutional law of August 10, 1926, to handle the greater part of the floating debt represented by the so-called Bons de la Défense Nationale. Certain revenues have been set aside to insure the working of the Caisse. An extremely skilful consolidation policy reduced the charges of the debt service, and the revenues proved far above this need (as against an originally presumed deficit which would have been covered from ordinary budget receipts). The law of December 30, 1928 (Sect. 96), therefore authorised the Caisse to redeem Government securities by purchase on the stock exchange, and Article 4 of the law April 7, 1930, ratifying the Young plan, gave it full powers to undertake consolidation and redemption operations.

² It is true, however, that in the figure of 12,000 million pre-war francs, an unknown amount of gold-coin hoards is included. The estimate of M. Pallain of the gold in circulation was 2,000-3,000 million pre-war francs (National Monetary Commission, *ibid.*, p. 218). This estimate is too low. It is probable that the pre-war gold stock of France (outside the Banque de France, which held 3,200-3,500 millions in the years 1910-13) was around 5-6,000 millions. The estimate of Mr. Edie (*Capital, the Money Market and Gold*, Chicago, 1929) of 1,900 million dollars (p. 25) is rather too high.

increased from 111 a year ago to 115 in the first quarter of 1930, tends to bear out this assumption. The considerable increase in wages from 600 to 660 between Oct. 1928 and Oct. 1929 strengthens this view,¹ the more since employment, as shown by the increase of foreign labour, increased last year. As, however, the transport data and the consumption of coal show some slackening in the pace of production in the early summer of 1930, the action of the note circulation in the next few months may give a clue to the solution of the question whether the savings of a broad strata of the French population take the form of hoarding to any considerable extent.

The peculiar structure of the French savings banks² affords some additional explanation of the apparent inability of the French banks to expand their credits, and of their urgent need for strengthening their reserve position. The savings banks, both the "Caisse nationale" and the provincial "Caisses ordinaires," have to transmit their deposits to a Government office. This office, the "Caisse des dépôts et consignations," invests the funds for the account of the savings banks in Government securities, or bonds which are guaranteed by the State and in obligations of certain public corporations, and the Crédit Foncier. A reserve *maximum* of 10 per cent. of the deposits on January 1st of every year is kept in cash. Of this amount 100 millions may be left with the Treasury, the surplus has to be deposited with the Banque de France. The Government office, because of the low liquidity requirements, is able to pay a rather excessive rate of interest. Even for the present year this rate was fixed at 4 per cent. The "Caisse nationale" gives $3\frac{1}{4}$, the "Caisses ordinaires" $2\frac{1}{4}$ – $3\frac{3}{4}$ per cent. to their depositors.³ The deposits are due on demand. The law of August 20, 1926, fixed the maximum amount of deposits for the accounts of individuals at 12,000, and of corporations at 50,000 francs. Since the great banks do not and cannot pay more than $1\frac{1}{2}$ per cent. on sight deposits, the results are obvious. The rather high maximum and the possibility of having several accounts enables many to use the savings banks as a depository of their working cash reserve. The "Caisse nationale" especially shows a large

¹ "Les Salaires," by Jules Dunic : *Revue d'Économie Politique*, 1930, p. 957.

² The savings bank system is regulated by the law of August 6, 1895.

³ This is even higher than it looks, because the interest on savings deposits enjoys special privileges with respect to taxation as contrasted with the bank deposits. The prohibition to draw cheques against savings deposits is not of great importance in France, especially since transfers can be effected by other means.

70,000 million francs will become due next year and in 1932, it is not probable that this policy, which has already produced such remarkable results,¹ will be discontinued. Indeed, as the huge balances of the Treasury gave rise to violent attacks, they have been reduced by tax reductions, by increased expenditure, by the alteration of the fiscal year, and by pledging the remainder to the so-called reconstruction plan. But as these funds dwindled, they have been replaced from the proceeds of the reparations loan.²

In these circumstances it could not have been expected (and it cannot be expected) that any attention would be paid to the consequences of the fiscal operations on the banking structure,³ and a repetition of disturbances of this kind must be anticipated. The only possibility open to the Treasury itself for the avoidance of tension would be to keep the resulting balances with the credit banks instead of the Banque de France, an obviously impossible expedient in France.⁴

The borrowings of the other clients⁵—the advances on securities of the Banque consist mainly of such loans, and can be taken as representative—though they increased considerably last year and this level was maintained this year, are apparently insufficient to procure enough cash for the whole system.⁶

We may now briefly summarise our results. We found that the gold demand is clearly arising from the need of the great joint stock banks to replenish their cash reserves. This need was accounted for by a rise of the note circulation, by the peculiar structure of the French savings bank, and last but not least by the operations of the Treasury and the "Caisse autonome" in

¹ The rate of capitalisation of the debt was lowered from well over 8 per cent. in 1926 to little more than 4 per cent. at the present.

² The continuation of redemption operations with a view to lowering interest charges—political reasons apart—made the flotation of the reparations loan so important to France. At the same time it provided the French investor with a new high-yield security.

³ The flotation of the reparations loan and the operations of the "Caisse autonome," which led to an excess of issues of "Bons" over redemptions, withdrew over 4,000 million francs from the market. There can be little doubt that this was the main cause of the recent gold imports.

⁴ A method often used in U.S.

⁵ The direct loans of the central bank in the form of rediscounts are probably not very considerable. It is rather more difficult for a private client to obtain credit on rediscount. The supply of bills with three good signatures is not great, and the procuring of the necessary securities to replace the third signature is rather an impediment for the business man, who probably prefers to use those as a basis for an additional loan, rediscounting his bills with the credit institutions.

⁶ It must be remarked that the quite unnecessary disturbance of London during the issue of the shares of the B.I.S. was entirely due to the Banque de France. The Banque, quite unnecessarily, stipulated *full* payment for every subscription, though a considerable over-subscription had to be expected. This locked up about 5,000 million francs, since the issue was 158 times over-subscribed.

order to convert and fund the national debt and lower the interest charges. It is not yet clear whether and to what extent the increase of the volume of the note circulation is caused by hoarding. The huge increase in capital flotations and savings deposits seems to indicate that such hoarding, if any, cannot have been very extensive. This conclusion was borne out to some extent by the fact that the increase of the bank-note circulation can be partially accounted for by the increase of employment, wages and cost of living.

The question arises why this strain on the reserves of the banks did not find any expression in the money rates in France. Why was the market in spite of this occurrence apparently glutted? This lack of sensitiveness is one of the symptoms of the disorganisation of the Paris money market resulting from the inflation, which has lately been extensively studied.¹ In this connection, therefore, only a few relevant facts need be mentioned. The call loan market, which in other countries plays such an important rôle, is very narrow in Paris. Before 1924 there was such a market based mainly on loans procured on short-term Government bills. At that date, however, the Banque de France excluded these bills from the list of securities on which loans could be obtained, because of the danger that these funds would be used for bearish operations against the franc. The market never recovered from this blow and became, especially since the Banque de France last year allowed short-term borrowings on commercial acceptances, almost entirely nominal. The big banks do not like to borrow from each other and resell bills, and there are no intermediaries, bill brokers, who would supply the necessary element of elasticity. It seems impossible, on the other hand, that bill-brokerage could be introduced without giving to the Banque de France a discretion to purchase prime paper under her bank rate. To form a short money "pool" without the aid of the Banque is not feasible. Its aid, on the other hand, cannot be useful if its rate is the same as for ordinary trade bills (or if it is increased by a commission of $\frac{1}{2}$ per cent., as is now done on short-term loans). The apparent low rates on acceptances do not have the significance commonly attributed to them.² The high fiscal charges, which were cut down only at the end of last year, the high commissions charged by the banks and their apparent unwillingness to provide adequate

¹ V. Ricard, "Le marché monétaire et les changes," *Revue d'Econ. Pol.*, 1929, p. 438. *L'Europe nouvelle*: "La réorganisation du Marché de Paris," January 11, 1930, No. 622.

² It has to be remembered, also, that the discount charged on the open market on prime bills for the first eight days is the bank rate.

facilities, render these rates nominal and not comparable with the rates of other markets. This is the more true since during the period of money tension the banks refused to buy, from certain countries, drafts at the market rate, a discrimination which is the more inexplicable and irritating since these drafts have been accepted by the same institutions.

These and other reasons¹ are responsible for the apparent inability to expand the market. Since, however, the banks look for a safe and short-term investment for their funds, this scarcity of prime bills, made acute by the conversion and funding of the "Bons," lowers the rate of interest, and compels them to hold a greater part of their secondary reserves on foreign money markets.²

The market rates, therefore, have not the same significance as the market rates in England or in the Eastern States of the U.S. The bulk of the business is done on very much higher rates. The interest charge of the great joint stock banks on two-named paper is generally $\frac{1}{2}$ per cent. above the bank rate plus a commission of $\frac{1}{2}$ per cent. per quarter. The basic rate for advances on securities is $\frac{1}{2}$ per cent. above and, in open accounts, 1 per cent. above the rate for advances fixed by the Banque de France augmented by $\frac{1}{2}$ per cent. quarterly.³ These rates, however, may be regarded as minimum rates on good names. The interest charges of the provincial banks are considerably heavier.

If now the central bank, through its own operations, does not or cannot come to the aid of the banks, these must, in order to obtain currency, either obtain credit or liquidate their foreign assets.⁴ In most countries, however, the great banks do not care to borrow at the central bank—the less if they have ample secondary reserves which they can mobilise without such borrowing.⁵ This is the case in France too, especially if the

¹ There is, for example, the difficulty of the antiquated provisions of the French law with respect to the pledge of securities (*gage*). Only the Banque de France and the Crédit Foncier are exempt by special ordinances from those regulations, which forbid the sale of the pledged securities without previous judgment.

² The amount of the "Bons" decreased through redemption and funding from 48,261 in 1926 to 28,792 millions in 1929. The short maturities have been entirely eliminated because of the previous bad experiences. Since June 2, 1928, only "Bons" of two years are in circulation. The chase of the banks after bills which have only a short time to run became proverbial. A similar development could be noted on the London market early this year. The apparent fallacies leading to this policy cannot be discussed here.

³ The spread between these rates and the bank rate seems to have increased last year. This is one of the effects of the policy of the savings banks, which forces up deposit rates. In Germany and also in other countries the same development may be remarked.

⁴ cf. Note 1 on p. 446.

⁵ The borrowing is then effected by someone else, or gold imports take its place.

differences between the foreign market rates and the domestic bank rate are not very large,¹ at least as far as the joint stock banks are concerned. This feeling may be explained by tradition and prestige. An additional cause is the fear on the part of the joint stock banks of the competition of the Banque de France. Since the branches of this institution (18 in the capital, 159 in the provinces, and 483 other offices) handle the same business as the branches of the banks,² this fear cannot be dismissed as altogether unfounded.³ At any rate we can discover an intimate relationship between the gold imports and the level of the rediscounts at the Banque de France. In the autumn of 1928, when the rediscounts were still at a low level (because of the results of the foreign exchange sales), the gold imports were almost exclusively due to the conversion operations of the Banque de France. This situation altered completely in 1929. The rediscounts, for the reasons discussed, reached the high level of 9,703 millions in November. A heavy inflow of gold, not prompted by the Banque de France, ensued.⁴ When the disbursements of Government balances reduced rediscounts successively to 5,050 in April and 4,598 in the middle of May, gold imports ceased almost completely. The subscription of the shares of the B.I.S. raised the debt of

¹ Which was the case in the end of 1928, when the Banque de France was enabled to liquidate its foreign exchange loans by selling them to the banks, which in turn procured the necessary cash by rediscounts. The same occurred again in the last quarter of 1929. The present small margin between the rates in Paris and London has been responsible that there was no marked back-flow of money after the completion of the disturbing fiscal and financial operations. Another reason for this phenomenon is that the release of cash was almost always counteracted by the increase of circulation.

² V. the testimony of M. Pallain, National Monetary Commission, *ibid.*, pp. 192-3.

³ The banks discount their small bills with the Banque, which thus provides them with an efficient and very cheap collection machinery. The amount of these bills tends to be constant and cannot provide for any exceptional needs.

Advances on securities do not come into consideration as a source of additional cash because of their expensiveness. At the present moment their rate is $\frac{1}{2}$ per cent.

⁴ It is probable that the crash in New York which reduced money rates was an additional cause.

Discounts and advances of the Banque de France (in million francs) :

Discounts:												
1930	6-912		5-684	5-050								
1929	4-454	4-650	5-290	5-940	6-180	6-863	7-852	8-305	8-157	8-548	9-703	8-012
1928	1-660	1-660	1-801	1-944	2-232	2-371	2-493	2-521	2-932	3-501	3-935	4-195
Advances:												
1930	2-568	2-559	2-578	2-641								
1929	2-226	2-310	2-361	2-365	2-398	2-380	2-438	2-421	2-434	2-501		2-591
1928	1-713	1-723	1-740	1-756	1-789	1-882	1-936	2-004	2-015	2-127		2-239
Discounts: End of May 1930 .					7-617	End of July 1930					6-058	
June 1930 .					6-176	August 1, 1930					4-805	
Advances: End of May 1930 .					2-541	End of July 1930					2-682	
June 1930 .					2-693	August 1, 1930					2-871	

banks to almost 9,000 millions, the drain on foreign gold reserves began again, and continued when the floating of the reparation loan and other fiscal operations kept the level of rediscounts between 6,000 and 7,000 millions in July.

The central bank (by purchases of Government securities or acceptances—as is done in London or New York—or foreign exchange—as the central banks of the gold exchange standard countries do) could indeed create additional cash without any disturbance to the home or foreign money markets. In fact these open-market operations are successfully employed in London and in New York to counteract the otherwise stiffening effect of fiscal operations of gold-efflux, if the authorities do not wish an increase of interest rates. The same aim would be reached, of course, if the Bank would undertake “report” operations (*i.e.* cash purchase of securities and foreign exchange with a simultaneous forward sale).

This expedient, however, is not open to the Banque de France. The 8th article of its original charter of January 16, 1808, limits her activities to those expressly allowed by the law. But the charter and the subsequent laws do not contain any permission to undertake open-market purchases. This restriction is rendered complete by the express prohibition against quoting different interest rates on the same kind of operations to different clients. Thus, even if there was an organised money market in Paris of a sort comparable with that in London or New York—and this is not the case (partly just because of these shortcomings of the Bank-charter)—the Banque de France could not make competitive bids to secure bills on the open market so as to alleviate a tension in the market.

The permission to sell and purchase the “Bons” of the “Caisse autonome,” handed over in place of the Government obligations which served as a security for advances made by the bank to the State for the purposes of allied Governments,¹ is of no use, since the Banque never sold any of those bonds.

The bank, therefore, cannot carry on any open-market policy to provide for the need for additional cash. A direct intervention on the foreign exchange market which was allowed by the law of August 7, 1926, is no longer possible, since the new monetary law of June 25, 1928, expressly abrogated this permission. If the Banque refrained this year from the liquidation of any of

¹ Article 3, Convention of June 23, 1928, between the Government, the Banque de France and the “Caisse autonome” ratified by the monetary law of June 25, 1928. See the Annual Report of the Banque de France for 1929, p. 23.

its own foreign holdings in order not to aggravate the gold movement, this was the most it could do. Any active help to the market has been made impossible.

The liquidation of the foreign balances of the banks must necessarily lead, therefore, to gold imports, and one does not see how this liquidation can be brought to an end in the present situation.

It is, on the other hand, of the utmost importance that these gold imports, which are an additional factor of disturbance in a very grave economic situation, should come to an end. This is not only in the interest of the world at large but also in that of France. If that country has not yet been subjected to the world-wide depression, it seems hardly possible that a continuation of the crisis will not have any effect on her prosperity. The statements of responsible statesmen show that they are well aware of the truth that a failure of France to co-operate in the maintenance of economic stability and in overcoming the present state of depression, far from enhancing her already splendid economic and financial position, can only harm her own development.

It cannot do any good, however, if the French authorities merely stress the fact—as they like to do ¹—that the French gold imports are due to “natural causes,” to the automatism of the gold standard. The tendency to deprecate the idea of conscious management of monetary development (while it can be understood after the many cases of mismanagement) is very dangerous, because it may easily lead to emotional excesses.

The scientific and quasi-scientific attacks ² on the gold exchange standard, which mistook the difficulties which occurred in individual cases for shortcomings of the system, have already led to most serious consequences in increasing quite unnecessarily

¹ Report of the Banque de France for the years 1928 and 1929. This tendency is apparent also in many French scientific publications.

This passivity towards gold movements is not quite as impartial as the French sources like to stress. The bank indeed did not hinder the influx of gold. As soon as the exchange rates went against France, however, the bank sold foreign exchange and hindered the export of gold. The contradictions of its reports for 1928 and 1929 are apparent in this respect (1929, pp. 4-6, and 1928, pp. 18-20). The artificial narrowing of the gold points was another step in this direction, because it encroached upon the well-known forces which tend to bring about the equilibrium in international payments without gold movements (v. A. Lansburgh, *Internationale Bank und Goldclearing*, Francfort, 1929) (*ibid.*, 1928, p. 8). The refusal to accept standard gold (which, by the way, cannot be based on any French law) was probably not due to the desire to limit the gold withdrawals from London.

² A typical example is Mr. Mlynarsky's book on *Gold and Central Banks*, 1929.

the scramble for gold. The failure of intervention now may cause further disturbances of the first magnitude. It can be easily understood that the French legislators, still under the impression of a devastating inflation and the unpleasant task ahead of ratifying and perpetuating a devaluation of the internal debt to one-fifth of its nominal value, wanted to exclude any possibility of a recurrence of a depreciation of the currency, and embodied their inborn distrust of the authorities in restrictive regulations. But it would be a grave error to suppose that they had the intention of causing a severe deflation with equally disastrous consequences. Indeed, they even took the possibility of the need to undertake open-market operations into consideration. Article 9 of the convention between the bank and the State of June 23, 1928, expressly allows the bank to purchase short-term securities and bills for the account of foreign central banks on the open market. These can be repurchased, if necessary, by the bank. This permission was inserted not only so as to be able to accord to foreign central banks facilities similar to those which they granted to the bank, but with the intention—as M. Moreau, the Governor of the bank, declared at the general meeting¹ on January 31, 1929—"to enable the bank to undertake direct interventions on the short-term capital market by selling or purchasing securities, thus facilitating the control of the market, one of the foremost duties of the bank."

The history of the Banque de France, on the other hand, does not lack examples of direct discount credit to foreign central banks in order to mitigate the tension on the international money market.² Both expedients offer a way out of the present deadlock, since the proceeds of these inter-central bank credits could be used (either by depositing them with French banks or by purchasing French short-term securities or foreign exchange) to satisfy the need for currency without a drain on foreign markets. At the present moment, however, it seems improbable that any foreign central bank would care to resort to either facility, not only because of prestige but also from political considerations. The creation of the B.I.S., however, provided the world with an instrument admirably fitted for purposes like the solution of the

¹ Report of the Banque de France for 1928, p. 16.

² During the Baring crisis (1890) the bank shipped 75 million francs against the pledge of 3 per cent. Treasury bills (Ramon, *Histoire de la Banque de France*, p. 400) in 1906, and again in 1907 she placed gold to the disposition of the Bank of England, rediscounting English commercial paper (Conant, *History of Modern Banks of Issue*, p. 716), an operation which was repeatedly used to counteract the drain on the English gold reserves.

present problem. The activities of the B.I.S. are not as strictly limited by tradition as those of other central banks. The political objections, which would most certainly be very keen if a foreign central bank were granted credit to be used for intervention against the continuation of gold imports into France, could also easily be overcome with this solution. The statutes of the B.I.S. provide the central banks with an absolute power of veto against any operation in their respective countries which are regarded unfavourably by these authorities. It would be, therefore, apparent to everybody that the operations are conducted with the express consent and under the supervision of the responsible French circles. This guarantee will not fail to secure to these measures the necessary general approval, which on other occasions was easily obtained.¹

Since the B.I.S. probably does not have enough commercial bills, the adoption of the first expedient would be better. The working of this mechanism is very smooth. The French balances of the B.I.S., if any, could be used as an initial fund, or an advance against securities could be obtained. With this money (because of the scarcity of French acceptances) "Bons" of the "Caisse autonome" or English commercial bills could be purchased. Through the resale of these bills or securities to the Banque de France the revolving fund could be replaced and the operation repeated.² It may be remarked that no objection could be taken against the rediscount of English bills by the Banque de France. Sub-section 4 of the law of December 29, 1911, allows the rediscount of bills payable in foreign countries. No regula-

¹ The French Chamber rejected in 1891 with 419 votes against 29 a motion of censure moved against the Banque de France because of its intervention in favour of the Bank of England.—Ramon, *ibid.*, p. 400.

² It may be pointed out here that such intervention does not mean any change as far as the French internal monetary situation is concerned. These operations only serve to furnish funds which otherwise would have been procured by gold imports. A direct intervention on the foreign exchange market, the purchase of English bills, is much the safer way to insure this condition. This was amply demonstrated by the American experiment of 1927. In that case the Federal Reserve Bank brought about gold exports by artificially diminishing money rates through open-market operations. The funds thus created not only flowed to foreign countries but stimulated a tremendous stock-market inflation. The help afforded by the gold "diehoarding" was thus turned into a peril which more than over-compensated the beneficial effects. It is to be hoped that a better knowledge of the shortcomings of the gold standard will furnish us in the form of well-planned interventions on the foreign exchange market combined—if necessary—with restrictive open-market operations (*i.e.* the purchase of foreign exchange with simultaneous sale of home bills or Government securities, which would be possible in France too) a better technique to overcome international monetary entanglements without causing internal troubles.

tions mention, moreover, that bills have to be drawn in francs. As a matter of fact, the bank rediscounted, until recently, bills drawn in foreign currencies and payable abroad.¹ Thus there does not seem to be any technical obstacle to a quick relief from the present unsatisfactory situation.

Such relief is more than warranted. Whether the French gold import is due to need for cash or whether it is due to the repatriation of French funds, it is urgently desirable that this need should be satisfied without gold imports, the foreign balances being taken over against organised lending by a central bank (or the B.I.S.). If the former assumption is borne out, which seems to be the case, the solution can only lie—since a speedy alteration of the charter of the Banque de France is out of question—in the adoption of the above expedient. If the latter assumption be proved, a temporary use of it seems to be necessary, because the building up of an ample credit market is not a matter of days and weeks but of years.²

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¹ *Banque de France: Les opérations à Paris et dans ses succursales*, Paris, Mars 1929, p. 8.

² Especially if the technical, psychological and political difficulties are borne in mind. The speech of M. Paul Reynaud in Epinal, while it is commendable because of the spirit of co-operation expressed in it, does not enhance the hopes for a speedy beginning of a French capital export, even if one disregards or minimises the other very grave problems.

FINE GOLD *v.* STANDARD GOLD

THE process of evolution of the post-war system of gold standard is still far from concluded. New situations continue to arise from time to time, and experience often compels us to modify our theories, or at least to complete them with essential additions. One of the most interesting and most complicated situations ever faced by currency experts has been brought about by the decision of the Bank of England on June 6 to pay out only bars of standard fineness ($\cdot 916\frac{2}{3}$), and the decision of the Bank of France not to accept bars of a fineness inferior to $\cdot 995$. As a result, gold withdrawn from the Bank of England has to be refined first before it can be delivered in Paris. This means additional expense and delay, in consequence of which the gold export point of the sterling-franc rate declined from about 123.89 to a figure that depends upon the refining charge. As the refining charge is subject to frequent alteration the gold point changes accordingly.

In addition, even this variable gold point (which may be named "relative gold point") holds good only for an amount of about £250,000 per day, which is about the limit of the total capacity of refiners in London and Paris. Thus, if on any given day the demand for francs exceeds that amount it may bring about the depreciation of the exchange considerably below the rate which is the gold point for £250,000 on that particular day. This seems to give the impression that, for amounts exceeding that figure, there is no gold point at all, and that, in case of particularly heavy demand for francs, sterling may depreciate to an unlimited extent. This is a mistake, however, which is rather dangerous, as it tends to undermine confidence towards sterling. The fact is that the sterling-franc rate continues to have an absolute gold point for the transfer of unlimited amounts of gold, which is determined by the cost of triangular arbitrage operations. As the Reichsbank, for instance, is prepared to accept bars of standard fineness and is also prepared to pay out fine gold bars, the lowest rate to which the sterling-franc rate can decline is determined by the expenses of the shipment of gold from London to Paris via Berlin. This rate is calculated at about 123.45. In practice, of course, if such operations were to be

carried out on a large scale, the depletion of the Reichsbank's fine gold bar stock would compel it either to stop accepting bars of standard fineness or to stop paying out bars of .995 fineness. Two of the central banks, the Swiss National Bank and the National Bank of Belgium, have, in fact, already resorted to the former alternative in anticipation of a drain of their fine gold stock. There would always remain, however, the theoretical possibility of shipping standard gold to New York, and then shipping fine gold from New York to Paris. Such operations would be, of course, too absurd to be considered seriously; it is nevertheless important to lay down the fact that they are possible to a practically unlimited extent, and that the expense of such operations determines the lowest point—the absolute gold point—beyond which sterling cannot possibly decline. This fact is held to dispose of the belief that the anomalous situation created since June 6 has removed every limit to a possible depreciation of sterling.

One of the consequences of this unusual situation was that the South African refined bar gold dealt with in the London market rose to a substantial premium, the extent of which has been determined by the fluctuations of the French exchange. The French exchange, in turn, was largely influenced by the refining charge, which was first lowered from $1\frac{1}{2}d.$ to $\frac{3}{4}d.$ per oz., and was then gradually raised to $1\frac{3}{4}d.$, only to be reduced again subsequently. So long as there was a strong demand for francs the Paris rate always tended to be in the close vicinity of its relative gold export point, which again depended upon the refining charge. As there is only one firm of refiners which is in a position to refine gold on a large scale, it was thus placed for a while in a position of determining the sterling-franc exchange rate and the market price of fine gold. As soon as the insistent demand for francs relaxed, however, it was the refining charge which had to be adjusted to the exchange rate so as to make it worth while for arbitrageurs to ship gold in spite of the rise in the sterling-franc rate.

The exchanges of the two countries—Belgium and Switzerland—which followed the French example in refusing to accept bars of standard fineness moved in sympathy with the franc, bringing about some moderate shipments of gold from London to those countries. On the other hand, the exchanges of countries which continued to accept bars of a standard fineness—such as the United States, Germany and Holland—remained comparatively stable in relation to sterling. Considering that the

abnormal appreciation of the franc in relation to sterling resulted in the transfer of funds from London to Paris via other centres, and brought about, therefore, a demand for reichsmark, dollar, and guilder, it is rather puzzling why these exchanges did not move against sterling. Failing to find a better explanation, this phenomenon ought to be attributed to the work of the psychological factor, *i.e.* the existence of links of solidarity between the currencies which are on a standard gold basis as against the currencies which are on a fine gold basis.

It is very unfortunate that the highly delicate and difficult international gold situation should further be complicated by the Bank of France's attitude to insist upon a minimum fineness of .995. The Bank of England's decision to deliver bars of standard fineness only was dictated by necessity, as a result of the depletion of its stock of fine gold bars. During the twelve months ended May 31, 1930, the Bank sold fine gold amounting to £63,615,000, while the amount of fine gold it bought was only £18,334,000; the bulk of its influx consisted of sovereigns. Its stock of bars of standard fineness has increased during and after the war through the melting down of sovereigns withdrawn from circulation, while at the same time it exported to the United States the greater part of its stock of fine gold. According to the Gold Standard Act of 1925, the Bank of England is only obliged to pay out "gold of the standard of fineness prescribed for gold coin by the Coinage Act, 1870," so that there is no reason why that institution should incur expenses by refining its stock of standard bars in order to be able to deliver fine gold. It is for the arbitrageurs to stand the cost of refining if there is a sufficient margin of profits in the shipment to make it worth their while. If the present situation remains in force for a prolonged period it will result in the gradual refining of all the existing stock of gold of a fineness inferior to .995, which includes not merely bars of standard fineness but also bars of .900 fineness originating from the melting down of gold francs, eagles, etc. The process is likely to be a lengthy one, however, and it involves a considerable superfluous expense. At the time when efforts are being made to reduce uneconomic expenses caused by international gold movements by means of earmarking operations between central banks and by means of the projected gold clearing system of the Bank for International Settlements, it would be anything but logical to incur additional expenses merely in order to raise the fineness of the world's gold stock to the arbitrarily fixed figure of .995. The process is certainly a retrograde step, calculated to

increase the number of those condemning the fetish worshipping of gold.

So long as the present state of affairs exists it causes a feeling of uncertainty in the foreign exchange markets as to the figure of the gold points, which is highly detrimental from the point of view of the stability of the exchanges. As the bars of fineness inferior to .995 are "demonetised" in several countries they will be taken with reluctance also by other countries, for, in cases of emergency, they may not be able to sell to countries on a fine gold basis. It is thus obvious that the discrimination against bars of inferior fineness is causing considerable inconvenience to most central banks, as they possess a fairly large amount of such bars. It is causing inconvenience to the international money market and to the business world in general, as they cannot reckon any longer with the figures hitherto known as representing approximately the limits of possible exchange movements. It is causing inconvenience, not in the last place, to French holders of sterling balances, as they may have to withdraw their funds at a time when sterling is temporarily at an abnormal discount in consequence of the refusal of bars of standard fineness by the Bank of France.

Nobody could attempt to put forward any arguments in favour of the general adoption of the use of gold bars of .995 fineness for securing the note circulation on the ground that they would serve that purpose better than bars of .916 $\frac{2}{3}$ or .900 fineness. As the fineness of the French coinage has been fixed at .900 there is no advantage even from a minting point of view in insisting upon a minimum fineness of .995. It is true that fine gold bars occupy less space than bars of standard fineness. Considering, however, that the capacity of the new vaults of the Bank of France is about £1,000,000,000 of fine gold, even if its whole stock were to consist of standard bars there would still be space for £916,666,666, so that, even if France were to continue to buy gold at the present pace, this figure would not be reached for many years; it is thus premature to worry about considerations of space.

The obvious common-sense solution of the anomalous situation lies with the French authorities. There is no reason why the unjustified restriction which does not benefit either the Bank of France or France in general should be upheld. It would show a deplorable lack of co-operation if no understanding could be reached on a purely technical point of this kind.

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Note on the above.—The action of the Bank of France in deciding to accept only fine gold can, I would suggest, be looked at from another point of view than the above, namely, as a friendly act on the Bank's part, in order to prevent France's large requirements for gold from proving too embarrassing to the Bank of England and to spread these requirements over several countries. It is not correct, in my opinion, to suppose that every step which tends, in effect, to widen the gold points is a misfortune and a source of waste—but quite the contrary. It might be better, perhaps, to widen the gold points in a more formal and regular fashion. But opinion is conservative on these matters. Failing such a change, nothing could have been more sensible—so it seems to me—than for the Bank of England and the Bank of France to join together to take advantage of the letter of the existing law. As to this see Mr. Balogh's article above.

J. M. KEYNES

A NOTE ON AUSTRALIAN EXCHANGE

THE most obvious of Australia's economic difficulties at the moment is the exchange deadlock. The purpose of this note is to explain how this arose and to suggest measures by which it could be avoided in the future.

Some important facts must be made clear at the outset. The first is that Australia, besides being normally a free gold market (since 1925), has the same currency standard as this country, so that exchange is consequently quoted in terms of a small premium or discount per hundred Australian pounds or per hundred English pounds. The unfortunate result of this has been that business men, and even the banks themselves, regard the two currencies as fundamentally the same, find exchange movements incomprehensible, and think of exchange problems as problems of "bringing money home to London" or "getting money out to Australia." The practice of the banks in collecting and negotiating bills is to insert a separate "charge for exchange" in accounts, the amount being added to or subtracted from the face value of the bill (whether it is in Australian or English money), and this only serves to heighten the impression current in business circles, that Australian exchange, unlike French or American exchange, involves a small payment for the service rendered of "transferring the money." Of course there is no such difference, but the wrong impression persists, and has diverted attention from the really fundamental causes of Australian exchange fluctuations.

A further important fact is that all operations in Australian exchange are in the hands of a "ring" of Australian and Anglo-Australian banks. This ring fixes rates and makes changes in them (without any previous notice) at infrequent and irregular intervals. Rates may be stable for months at a time or may alter overnight. There are no forward sales or purchases, and consequently the market is very much at the mercy of the banks for its day-to-day requirements. It is obvious that ordinarily the rates charged by the banks must not in the long run be too much above the "true" rate (which would emerge under conditions of perfect competition), or private owners of Australian or English bank balances would begin to undercut the banks, or

ultimately the "artificial" rates would stimulate large-scale movements of goods in one direction, with consequent dislocation of the trade balance. The comprehensiveness of the ring, however, means that the banks in fact can go a long way in the wrong direction before their errors in rate-fixing are corrected by natural forces. The oft-quoted determinant of rate policy is the "size of London and Australian balances," which means that if the banks find their free balances (balances in excess of their normal local business needs) in London or Australia are "piling up," they manipulate rates so as to discourage the flow of funds to the overburdened centre. The underlying assumption is that the artificial rate in these circumstances does not coincide with the true rate, and must be moved until it does. It is clear, for example, that London balances will pile up when the wool and wheat bills drawn in Australia to finance the movement of these products at the end of the year are duly collected by the banks from importers in London. The expected seasonal movement of exchange against sterling generally occurs about this time, and generally has the effect of ultimately relieving the banks of their excess London balances. The whole arrangement, granted that the banks do monopolise the market and can consequently use their balances at each end as a reliable index, works fairly well in practice, in normal times. Complaints are certainly heard sometimes of the wide margins between the banks' buying and selling rates, and of the lack of forward exchange facilities, which might relieve seasonal congestion and reduce the losses resulting from sudden alterations in rates; moreover, the quoted rates do not hold good for large amounts, and it is a further disadvantage that there is no "anonymity" in exchange transactions, as with other currencies. This tends to make the banks a trifle arbitrary and discriminatory in their business. Nevertheless, the system has lasted for many years and normally works easily enough.

Since the War, however, the Australian exchange system, in common with all others, has suffered severe strains, and in 1920, 1921 and 1924 there appeared the very curious and almost unique phenomenon of "rationing" merchants for their exchange requirements. In 1921 the exchange absolutely broke down, that is to say, remittances one way (to Australia, in this instance) were for a time not to be had at all. At the present time, London remittances are very difficult to obtain in Australia, and the system has been perilously near another breakdown.

The most important reason for the present position is Australia's heavy adverse visible trade balance (Table I), which is

TABLE I.

	IMPORTS.		EXPORTS.	
	Merchandise.	Bullion.	Merchandise.	Bullion.
1929.				
1st Quarter	£35,412,932	£95,646	£45,218,392	£1,489,834
2nd „	35,086,806	72,890	28,734,583	549,717
3rd „	37,747,339	83,571	20,027,149	2,878,619
4th „	36,924,841	62,465	28,986,963	6,803,992
1930.				
1st „	32,273,628	55,634	24,203,419	13,852,826

(From the *Quarterly Summary of Australian Statistics*.)

the more serious because it has been accompanied by decreased overseas borrowing. Normally, an adverse trade balance produces its own corrective, that is, the exchange rate is adjusted against the importer. That this did *not* happen early enough and strongly enough in the case of Australia is all the more unfortunate, because, with the distinct and growing divergence between Australian and British price levels in 1929, there consequently emerged a powerful stimulus to Australian importers. Into the causes of the rising price level in Australia it is not proposed to enter here. What is important from the point of view of this note is the way in which this rise reacted upon the exchange, so as to produce (what is almost unknown in ordinary competitive exchange markets) "rationing" of exchange, and the possibility of a complete breakdown. If the foreign currency concerned were, say, the dollar, disharmony in price levels would quickly produce exchange movements against the country with a higher price level, followed ultimately by an outflow of gold and credit restriction. In this way the exchanges would "take care of themselves." But in the case of Australia, there seems reason to believe that the present artificial exchange system has retarded this beneficial chain of causation to a considerable extent and produced consequential evils of its own. Australian prices in 1929, so far from keeping pace with the falling British price level, started to rise in the beginning of the year, and the exchange rate did not register the growing discrepancy until July 1929. Moreover, the movements in this rate were not only slow in responding to price changes, but insufficient to take full account of them. By October 1929 the ratio between Australian and British prices had risen nearly 8 per cent. from the January level (Table II); the exchange rate had moved only $\frac{3}{4}$ per cent. against Australia. It might have been expected, further, that the movements of gold

TABLE II.

	April 1925.	Jan. 1929.	April 1929.	July 1929.	Oct. 1929.	Dec. 1929.	Jan. 1930.	March 1930.		
A. Melbourne Wholesale Price Index No. (To Base 1913 = 100)	166.1	164.2	165.3	166.6	168.4	161.8	158.0	151.5		
B. Economist Wholesale Price Index No. (1913 = 100)	169.0	136.1	135.0	134.6	123.6	126.0	123.7	119.4		
$\frac{A}{B} \times 100$	98.3	120.6	122.4	123.8	129.0	127.5	127.7	126.9		
Banks' Selling Cable Rate (Aus. on London)	7.5.25 99½	4.10.28 101	22.7.29 101½	3.9.29 101½	10.10.29 101½	18.12.29 102½	28.1.30 102½	17.2.30 103½	10.3.30 104½	24.3.30 106½

to which even these slight fluctuations led would have had the normal effect of curtailing credit. In fact, bank advances rose considerably all through the period, although deposits fell and the amount of Federal Notes issued did not change abnormally (Table III). It may now be worth while re-examining the present position of the exchange in the light of the above facts.

TABLE III.

	Advances.	Federal Note Issue.	Deposits.
1929.			
1st Quarter	£260,738,536	£44,408,226 (25.3.29)	£316,195,101
2nd "	263,891,240	42,258,226 (24.6.29)	314,073,121
3rd "	277,828,712	41,858,226 (30.9.29)	306,831,291
4th "	292,252,675	45,261,226 (30.12.29)	306,591,986
1930.			
1st "	289,418,012	43,999,326 (31.3.30)	301,485,381

(From the *Quarterly Average Returns* of the cheque-paying banks of the Commonwealth.)

Australian importers are finding it very difficult, if not impossible, to get even a small quota of London funds with Australian pounds, *at the present rate*. The banks have even arranged to pool their remaining London balances for Government purposes, so much does this erroneous idea of a fixed supply of London money persist. But there is not and never has been any reason why foreign exchange should not be sold in any quantity on any free exchange market, *at a price*. The first fault of the present system is that it has been, and apparently still is, selling London funds at a price which undervalues them. That is why London balances are disappearing, and that is one important reason why the very drastic Australian tariff has been introduced by Mr. Scullin. The tariff has to try to stop excessive imports being attracted into Australia because of the over-valuation of her currency on the

world's market. It is seriously suggested that much of Australia's present trouble would have been avoided if the adverse trade balance had been corrected, and the warning gold outflow started, by strong and rapid movements of exchange in favour of sterling early last year, if not before then.

The inference from all this is, that in abnormal times like the present, the fixing of exchange rates by an exclusive banking ring is not the best arrangement from the Australian point of view. A certain way to displace it would be to allow perfect freedom for foreign banks to open branches and deal in exchange in Australia whenever they wanted to. There is the possibility, of course, that Australia is "over-banked," and the Associated Banks preserve the ring for fear that competition in exchange and other business might weaken some of their less fortunate members and bring trouble on the rest. That question, although outside the scope of this note, is important in deciding the future of the Association. But it still remains clear that Australia may expect considerable benefit from a free exchange market, whatever troubles may come from unrestricted banking competition in other directions. Much was hoped from the new arrangement of September 1928, when the banks announced that they would open current accounts in Australia for other banks for exchange and other purposes, but these hopes have been disappointed. English banks wishing to open accounts in Sydney, for instance, are entirely in the hands of the Australian banks as to terms for overdrafts and credit balances. Cable transfers on Sydney cannot be sold in London against Australian bills bought here and in process of collection, without overdraft facilities in Sydney; and balances will not be kept in Sydney unless the terms are attractive enough to enable the English bank to use them profitably in exchange business. But since profitable exchange business for outsiders means less of such business for the Australian banks, the latter take care, in fact, to offer such terms for the opening of Australian accounts as will drive the outsiders to satisfy their exchange requirements through the ordinary channels.

A steady reduction of bank advances, which might have reduced the price level considerably and removed the necessity for movements in exchange, has not occurred, largely because overdraft rates have remained at much the same level ($6\frac{1}{2}$ –8 per cent.) since the beginning of 1929. As part of the Australian exchange system there ought, therefore, to be some central authority in control of monetary policy ready and able to use a weapon like interest or discount rate manipulation (or some

special device particularly suitable to Australian conditions) in order to stabilise Australian prices at world levels. The proposed Central Reserve Bank will perhaps do this. It is to be hoped, at any rate, that the discussions about the creation of the new bank may set a parallel inquiry on foot as to the advisability of retaining an artificial monopolistic exchange system, which seems to have outlived its usefulness.

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REVIEWS

The Economic Aspects of Sovereignty. By R. G. HAWTREY.
(Longmans. Pp. 192. 9s.)

THIS book is one more evidence, if evidence is needed, of the strong trend in contemporary thought towards the investigation of the borderland between well-defined, perhaps too well-defined, subjects. It may be that specialisation in many respects has over-reached itself and inbreeding set in; or, again, that the phenomena in one case and the other are not so distinct and independent as had been supposed. But certainly the exploration of these lateral frontiers of study is now yielding results as valuable as those of the forward extension of the subject; and it may be that we should look to the former as the more fruitful field of investigation. No borderland is more important than that between politics and economics; yet it has been little enough worked. Impossible as it is to say which would gain more from being penetrated by the matter and methods of the other, it is clear that political science has suffered more in the past from its divorce from economic considerations. In linking itself up with them it would gain reality and renew its vitality. Mr. Hawtrey's book, valuable in itself for its reflections in both spheres, is to this end more important as a contribution from an economist to political science.

He is concerned primarily with the economic problems raised by the absolute sovereignty of the modern State. There is, for example, the relation of the State to the activities of its subjects in undeveloped territories abroad; the problem arises whether the State gains or loses by identifying its interest with theirs. Clearly it may lose over a war in their defence more than it is ever likely to gain from them; or the profit, if there is one, may not go to the State, but to certain individuals or classes in it. So far he agrees with Norman Angell's thesis in *The Great Illusion*. But not entirely, for even so there may remain over a sufficient advantage which the State may not forgo. "Sovereignty is not property, but it carries with it important economic rights which are closely related to the rights of property."

The problems of economic imperialism are touched on, and there is a short survey of the period of rivalry for colonial expan-

sion among the Powers from 1871 to 1914. There are the questions of the shifting distribution of population; of protective tariffs and emigration policy, two of "the most conspicuous intrusions of the sovereign State into the realm of economics"; of the economic causes and conditions of war, and how to regulate conflicts which arise from the increasing power of one State as against the decline of another; or, as more often happens, between two strong Powers over a third which is declining. In a concluding chapter on "The Future," he discusses various ways of avoiding open conflict on such issues, but without confidence in any specific remedy for the ills of "the international anarchy," the diagnosis of which he accepts from Mr. Lowes Dickinson. "The settlement of disputes on purely legalistic lines allows no possibility of *growth*. . . . In fact, under the international anarchy there is no provision for growth or adaptation except through the use or threat of force."

Naturally, therefore, he arrives at an interpretation of the external relations of the State based on conflicts of power; power in turn being defined as mainly economic. Even conflicts of prestige, of which diplomacy largely consists, are the reflection of conflicts of power, since it is men's estimation of a country's strength which is appealed to in the game, and the effect on it of diplomatic victory or defeat which counts. He observes, however, that "these are matters partly of fact and partly of opinion. Were they exactly ascertainable and measurable, conflicts of prestige could always take the place of conflicts of force."

It is not that he would neglect the imponderable factors; they have their place, though nothing like that generally supposed by the men engaged in the particular process. The obtuseness of individuals in thinking of them as decisive is like that of the prosperous nations of the world in contemplating the causes of their own success. "Their self-satisfaction is all the greater when their prosperity is attributable to military success, which they like to think of as the fruit of their own military virtues, and not, as it has so often been, as the result of economic power from time to time lavishly applied to restore situations endangered by military incompetence." Not so Mr. Hawtreys; but one wishes all the more that he had gone on to investigate how far these imponderables are capable of further analysis, whether they have not a considerable economic element in them, and are not at another remove determined by the social system.

Similarly in his discussion of the causes of war, Mr. Hawtreys declares unmistakably that the distinction between political and

economic causes is an unreal one. "The political motives at work can only be expressed in terms of the economic." (Surely the order here should be transposed; does he not mean rather that the economic motives tend to be expressed in terms of the political?) For, he goes on, "Every conflict is one of power, and power depends upon resources." So also is the distinction between wars of ideas and wars of the balance of power a false one. "Ideas, whether religious, political or racial, only so far modify the position in that they supply a different principle for sifting out the adherents of a contending power": a polite way of saying that they matter very little.

Indeed, Mr. Hawtrey goes so far in the direction of reducing the external relations of the State to terms of power alone, that one cannot but think he would have made his account more complete if he had developed his view of the connection between "economic," "political" and "ideal" factors. He implies a general interpretation based on the primacy of the first, a view which is perhaps inescapable; but it would have been better to make it explicit. In fact his reliance upon the spread of rationalism amongst States in these matters would seem to be ineffective unless it rests upon an understanding of the causes of conflict in these terms.

Such a thoroughgoing interpretation must involve consequences which appear in this book not to be anticipated. It is strange that a diagnosis which goes so deep should produce remedies so inadequate to the disease. "Good Europeanism" is not enough; nor cosmopolitan liberalism, nor "a little political chemistry to separate the elements which compose the mixture." It is only just, however, to point out that what Mr. Hawtrey sets out to do is to investigate the conditions of power on the present assumptions of the State as to sovereignty. From this aspect his assumptions are actual enough; but it is by no means equally true to say that they concur with the assumptions as to sovereignty predominant now in political science. This discrepancy may be in part due to his conception of the method of political science as that of "a process of logical abstraction"; whereas contemporary political theory depends much more on the historical method, which would give him the "true picture of the historical evolution of sovereignty" which is wanted. And this method, if followed, would have very important consequences on his treatment of the State in relation to class (pp. 96-98), and of representative government in relation to those who are represented (p. 53), where the State and representative government are regarded

as final ends—though surely that is to take too much for granted.

Very minor points to note are that on p. 39 and p. 57 are slightly contradictory remarks on Bismarck's attitude towards colonies, where the latter statement is the more correct; and p. 58 seems to under-estimate Russian colonial expansion compared with Austria-Hungary. If, on the one hand, there was the advance on the Balkans, on the other there was the remarkable achievement of nineteenth-century Russia in colonising Siberia and the trans-Caspian.

It only remains to signalise the appearance of a book at once brilliant in analysis and symptomatic of much that is best in contemporary thought.

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Economic Development of the Overseas Empire. Vol. 2. By the late L. C. A. KNOWLES and C. M. KNOWLES. (Routledge. 1930. Pp. xxii + 616. 12s. 6d.)

It is lamentable that so much of what is best in the work of English economic historians should be published posthumously. Lilian Knowles, like Toynbee and Unwin, left her chief task unfinished. But in her case there was a plan and a first storey in being, and the labour of those who have undertaken to complete the structure has been correspondingly lightened. In design this volume follows closely its predecessor. A succinct comparison of the problems of the separate Dominions (written, all but one chapter, by Professor Knowles herself) is followed by a detailed study of the economic development of the Dominion of Canada, about two-thirds of which is from the pen of her husband, Mr. C. M. Knowles.

The ideal history of a vast territory still in process of settlement must be cast in a mould quite different from the roughly chronological form appropriate to that of Britain. Accordingly the authors present Canada as springing from six points of penetration, the story of each of which is related separately. Nor is the approach to the subject that of the historian of an old country who is largely concerned with the features of industrial organisation. For though Canada presents many diverse types—ranging from the feudal seigniorics of Quebec to the joint-stock C.P.R.; from individual holdings associated with barter and truck to the co-operative elevator societies; from the co-partner-

ship of the Hudson Bay Co., and the communism of the Doukhobors, to the sub-contracting for Chinese labour in the canneries of British Columbia—no attempt is made to classify economic institutions or lay down “stages of development” in sequence. Organisation, indeed, plays but a subordinate part to the central themes of immigration, settlement and transport.

The life of the pioneers is portrayed in terms that will shatter more than one illusion. The fusion of scattered groups into a nation is shown as the result of the extension of the railways. The Dominion of to-day is described by Mrs. Knowles as “a triumph of art over nature”; and “art” is shown to imply the use of customs duties, subsidies, prohibitions, and differential transport rates, the principal object of which has been to deflect the flow of people and commodities from the routes—north and south—which geography would dictate, to those—east and west—in harmony with political ends. Canadian economic history, says Mrs. Knowles, is “the history of small men in close contact with the soil, and it is history from below.” But the book is, perhaps, occupied less with the silent forces of evolution than with the purposive acts of politically conscious men, eager to further economic progress, and engaged in what they regard as an economic war with a powerful neighbour.

The final chapter, headed “Industrial Organisation,” is, in fact, largely concerned with the development of a national policy. Is it desired to secure a pulpwood industry of the forest Provinces? Then Acts are passed prohibiting the export of soft wood cut on Crown lands. Is it desired to encourage the industry of dairy farming? Then it is made a criminal offence to manufacture, import or sell margarine anywhere in Canada.

In two chapters contributed by Dr. Allan McPhee the history of commercial relations between the Mother Country and the Dominions is admirably summarised. In the early days, lack of communications with the United States, no less than the existence of preferential tariffs here, tended to focus Canadian trade in British markets. The repeal of the preferences in 1846 and the settlement of the area about the Great Lakes caused Canada for a time to look south to her great neighbour; but since 1878, and especially since the 'nineties, the development of ocean shipping and the increasing American tariffs combined to deflect Canadian products once more to England. Incidentally, to the charge that Britain has made small response to the preferences given her by the Dominions, Dr. McPhee replies by drawing attention to the “invisible” preferences rendered in the

form of cheap capital, imperial defence and relief against double taxation.

The high qualities of the researches of Mrs. Knowles in imperial history were acknowledged in this JOURNAL when her first volume was reviewed. An appraisal of the work as a whole must await the publication of the final volume, which is to deal with Australasia and South Africa. For the present it suffices to record our fortune that the task of completing the work should have been taken up by the one who is best fitted to know what was in her mind, and who, as the later chapters show, is possessed of patience and insight. The memoir of his wife with which Mr. Knowles prefaces this volume has both depth and colour: it depicts a woman of spirit in whom learning and good sense were uncommonly well compounded.

T. S. ASHTON

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British Budgets, Second Series, 1913-14 to 1920-21. By SIR BERNARD MALLET and C. OSWALD GEORGE. (Macmillan. Pp. 407. 20s.)

THE appearance of this book (and likewise the promise of a third series of *British Budgets*) will be a source of satisfaction to many. To those who are acquainted with Sir Bernard Mallet's earlier work, *British Budgets, 1887-8 to 1912-13*, it will be sufficient praise to say that the new book maintains the high standard set by its predecessor.

The book is primarily a work of reference, giving for each budget a concise summary of the budget speech and of the subsequent debates upon it. There is a well-selected and well-arranged series of tables, giving budget estimates of revenue and expenditure under the usual heads compared with actual out-turn, and summarising the changes of taxation, together with comparative statements of rates and yields of particular taxes. The rates of income tax with all the successive systems of graduation, and the abatements as modified from time to time, are exhibited in some very compact tables. There are statistics year by year of incomes taxed both for income tax and for super-tax, and of estates liable to estate duty, and there are tables of the rates of super-tax and of estate duties as varied in successive budgets.

Other statistics are given, and one table in particular deserves special mention. It gives the tax revenue of each year reduced to pre-war values on the basis of the cost-of-living index figure.

It is carried down to 1928-9 (whereas the other tables stop at 1920-1), and shows that the tax revenue in 1927-8 or 1928-9 in pre-war values was actually greater than in 1920-1, and not very much less than in 1919-20.

The book goes beyond the confines of narrative and statements of fact in four chapters of Notes and Comments. These chapters deal with some of the broad questions of taxation policy, and also with some of the technical questions raised by war taxation. Brief particulars of war borrowing (a matter not adequately dealt with in budget speeches and budget debates) are also given.

There is also a discussion of inflation during the war. Inflation "was the only way of making ends meet, so long as the Government income (including loans obtained from the actual savings of the people) was insufficient to cover expenditure." It could have been restricted within narrower limits by "increased taxation, compulsory loans or Government control of all forms and grades of labour at an early stage of the war" (p. 380).

Heroic remedies would indeed have been in point had it been true that inflation was otherwise "the only way of making ends meet." But this does not give a true account of the origin of inflation. The brief reference (p. 373) to "the credits created by the Bank of England under the various emergency schemes adopted by the Government at the outbreak of war" does not adequately exhibit the importance of this as a cause of inflation. The additions to the floating debt in the opening months of the war were quite within the absorptive capacity of the money market. It was the addition to the Bank of England's securities of £100,000,000 of advances for the payment of pre-moratorium bills that flooded the market with money and made bank-rate ineffective. The vicious circle of inflation was thereby started and never afterwards broken.

Bank credit was created when the joint-stock banks took Treasury bills or when they subscribed to war loans. But that was an addition to the *superstructure* of credit, and produced far less effect than additions to the Bank of England's securities, which extend the *foundation*. The distinction is very generally recognised in the case where the Bank of England grants the Government Ways and Means advances, and the passage in which the Cunliffe Committee explained the inflationary effect of these advances is quoted on pp. 374-5 of the book. It is very remarkable that critics of war finance did not realise at the time, and have rarely pointed out since, that the advances for pre-moratorium

bills had the same inflationary effect as an equivalent amount of Ways and Means advances.

It is, in fact, gravely misleading to say that inflation "was the only way of making ends meet" in the circumstances of 1914. It was not strictly necessary to employ the Bank of England as an intermediary at all for the pre-moratorium bills, since the essence of the transaction was the Government guarantee for the advances granted. And if on grounds of policy it was judged desirable that the advances should be made by the Bank of England, the devices resorted to in the spring of 1915 (the accumulation of very large Exchequer balances, and direct borrowing by the Bank of England from the money market) could have been used to counteract the inflationary effect.

R. G. HAWTREY

Principles of Economics. By FREDERICK S. DEIBLER. (New York and London : McGraw Publishing Co., Ltd. 1929. Pp. xvi + 552. 15s.)

Principles of Economics. By FREDERICK B. GARVER, Ph.D., and ALVIN HARVEY HANSEN, Ph.D. (Ginn & Co. Boston : 1928. Pp. x + 726. 13s. 6d.)

IN the United States comprehensive treatises on the Principles of Economics are still being written, and whatever our own views on their general utility, no one will quarrel with Professor Deibler or challenge the value of his work. It is scholarly, lucid in exposition and attractive in presentation. The difficulty, in a volume of this kind, is to know how much knowledge can be credited to the reader, how much may be assumed and what must be explained. Professor Deibler succeeds admirably in avoiding all pitfalls. The student is never confused by the discussion of problems which he is not yet ready to understand; he is led by easy stages from a survey of the society with which he is superficially familiar to an explanation of facts and a comprehension of underlying principles. The chapters on Risk and Production, on the Business Cycle, on Protection and Free Trade, on Wages and on Profits are particularly interesting and suggestive.

The arguments in favour of Protection are discussed with judicial impartiality, and dismissed as inconclusive. A duty is economically sound only so far as it enables a country whose general conditions are favourable, but which is late in starting, to overcome the "artificial" advantage of a competing country which happens to have made an earlier start. The difficulty of

subsequently removing the duty and preventing the whole matter from degenerating into a political wrangle is, however, insuperable, and the net result of the tariff is an enhanced price which the consumer pays.

The discussion on wages is perhaps the least convincing portion of the book. Dismissing all questions of "needs" as part of the exploded "subsistence" theory, Professor Deibler approaches the question from the standpoint of a completely organised factory, and applies the theory of marginal productivity with cold-blooded detachment. The value of the contribution of the last man whom it is worth the employer's while to engage, constitutes the maximum claim that any labourer can make. This is the "economic" wage. The "contractual" wage may be forced above this level by collective bargaining, but only at the expense of the normal return expected and claimed by the other factors of production. Organisation can therefore raise wages in one occupation, but never in all, unless it succeeds, which is unlikely, in raising the productivity of labour.

This would seem to imply that a definite share of the proceeds of industry must be set apart as a return to the purveyors of capital and enterprise, but here the argument is not completely consistent. Adopting the conception of "pure profit" as the surplus over and above interest on capital and earnings of management, Professor Deibler states that in a perfect market there would be no such profit. In our industrial organisation, however, the entrepreneur occupies a strategic position in the operation of the economic system. He has the acumen to perceive that the community needs a certain commodity, and the enterprise to gain control of the instruments required for its production. When he has paid interest on capital, the whole or a part of which may be his own contribution, and has paid all costs, including managerial salaries, of which he may himself be the recipient, there may or may not be a surplus for him to appropriate. On the conjectural nature of such a surplus Professor Deibler lays particular stress. In his opinion it is altogether probable, though not admitting of statistical verification, that over the whole range of industry the profits gained by some firms are about offset by the losses of others.

This does not detract from the value of profits as an incentive (or shall we say a lure) to effort. Every business man hopes to make good, as every athlete hopes to win his race. We are to conclude that business men will accept failure in the spirit in which the sportsman accepts defeat. It is a good deal to expect.

And yet when Professor Deibler maintains that profits are essential, and that it is difficult to see what other motive could be substituted that would have as constant a driving power, it must be "pure" profits that he has in mind.

The whole argument bears out the significance which the author assigns to the entrepreneur. The automatic response of supply to demand, of goods to need, which is the main characteristic of our civilised life, can be relied on to function solely because, after every expedient to minimise the risk necessarily attendant on production has been adopted, the entrepreneur is willing to assume the inevitable residual uncertainty. Similarly, in treating of the business cycle, with its accompanying unemployment and distress, Professor Deibler can find no hope or remedy except through the improvement of the knowledge, skill and statesmanship of the business executive. Unusual profits are always the reward of exceptional ability, except where they result from monopoly. But Professor Deibler is not much disturbed by monopoly, holding that in the long run it leads to its own destruction. The obvious conclusion is that the entrepreneur runs great risks with very uncertain prospects of reward, and that the latter, where it exists, is amply justified.

Professors Garver and Hansen, who set out to analyse our economic system in a treatise much more comprehensive than Professor Deibler's, solve the difficulty of selecting their material by leaving out nothing. A statement of the problems confronting the student puts no less than thirty-seven leading questions, many of them composite. The reader is relieved to hear, however, that even a careful student of economics is not expected to give an answer to them all, and that some of the problems are indeed still unsettled.

After that the authors proceed to tackle all the problems with mighty good-will, and in thoroughly sound and orthodox fashion. It is easier to praise their matter than their manner, which is somewhat diffuse, or their arrangement, which is a little haphazard. We are told that satisfactory results have been obtained by the methods here employed in the Economics Course at the University of Minnesota, and this no doubt accounts for a conversational style better suited to the classroom than to volume form. Each chapter ends with a list of problems for discussion : even the Introduction, which covers only thirteen pages, sets as many as nine problems.

Like Professor Deibler, the authors are not afraid of monopolies, which rarely endure long enough to do much mischief.

The business cycle they admit as an unsolved problem, and they quote suggested remedies, but are not prepared to agree to the desirability of its elimination. It is a dynamic force in the social order; the prosperity phase provides favourable opportunities for young blood and new enterprise, while the subsequent depression squeezes out inefficient establishments and leads to the reduction of waste and improvement of technique. Almost as much might perhaps be said for war.

Wages are explained by the marginal productivity theory, but individual differences in earning capacity are carefully inquired into. Trade Unions may help to secure to the worker the full value of his labour, and the constant pressure they exert goads the management to increased efforts and improved efficiency. The analysis of pure profits is more detailed than Professor Deibler's, but leads to the same conclusion. They are the result either of exceptional ability in dealing with risks, or of exceptional opportunities, due to freedom from competition. There is an interesting chapter on the Dynamic Aspects of Distribution, and a useful comparison of the American and British attitudes, past and present, towards Tariffs.

H. REYNARD

The Idea of Value. By JOHN LAIRD, M.A. (Cambridge University Press. 1929. Pp. xx + 384. 18s.)

PROFESSOR LAIRD sets out to analyse the meaning of "value," and brings together within the limits of some four hundred very readable pages a description and criticism of the views on this topic of every philosopher of note. Following Geulinx, he divides the subject into: *Bonum utile*, what we choose as a means to good; *Bonum jucundum*, what we love with passion or any other sentiment; and *Bonum honestum*, what we love according to the dictates of reason. Comparing *Bonum utile* with the economist's utility, Professor Laird holds that statements about utility are generally misleading, partly because they are unduly psychological and partly because their psychology is inadequate. The theory of margins receives his special condemnation. "The value to mankind of the requirements of each of these sound needs (i.e. food, water, etc.) is infinite. The value of all of them taken together is this identical infinitude. What is the point then of computing the last unit in these instances which a man would strive for rather than do without?" But Professor Laird takes his examples from the experiences of shipwrecked mariners, while the economist deals with incidents in the daily life of a

modern community. In the discussion of "Means" and "Ends" which follows, Professor Laird protests against the drawing of a hard-and-fast line between the aims of the economists and the pursuit of welfare. On this point the reader would have welcomed further discussion, but the rest of the section is devoted to a philosophical analysis of the relation between means and end, which concludes with the view that in Economics at any rate the distinction between the two conceptions is a valid one, since material commodities and human services are definitely means to ends.

The sections on *Bonum jucundum* and *Bonum honestum*, which occupy about two-thirds of the book, have no special bearing on economic questions. Professor Laird concludes, however, that probably "all values are commensurable, and that there exists, therefore, a single system of all values which is measurable." In certain dimensions of certain values numerical comparisons are legitimate, in others they are not. "Ideals are the poetry of values, but there is also a place for prose," and presumably for Economics. On the whole, the economist is left with a feeling that if the field for his researches is somewhat restricted, and if it does not stand very high in the estimation of the philosopher, it is yet a definite field, and one where conclusions are not altogether unattainable.

H. REYNARD

The Political Economy of Free Trade. By J. M. ROBERTSON.
(P. S. King: 1928. Pp. 190. 8s. 6d.)

THIS defence of Free Trade policy is written in the form of a running commentary on the history of trade, and of the critical periods when trade policy was being influenced by special incidents of public policy or economic opinion. It is written with the logical force and clearness that are associated with all the work of its author and, especially when he is dealing with the Protectionist proposals of the present century in England, with pungent strokes of wit, and impatience of what he regards as muddle and contradiction. There is, in his view, no New Economics; but a constant necessity to apply economic analysis which is not to be confused with political necessity or ethical purposes. It is not to be confused with either of these, though either of these may affect its application. Clear thinking on the nature of exchange is the contribution of the economist, a process which must be separated while it is being carried on from the prejudice of wrong phrases, limited interests, vague moralisations,

and the instinctive discount of secondary and less visible results. But this thought is continually being enriched by experience; hence the emphasis of this book on the historical record, as brought out, for instance, in the chapter on the Practical Discoveries of Free Trade. So confident is Mr. Robertson in the appeal to history that he has to regard with surprise the connection in England between protectionist tendency and the historical economists. He agrees with them that "all we know about anything is got from the past," and that it is absurd to imagine a clean slate for any recurring political problem. But the requisites of interpretation are "a knowledge of economic literature, and as high an analytic and synthetic power as was brought to bear in his day by Ricardo."

The "instinctive practice of Protection" misled even Adam Smith, in the argument of the "two capitals"; it is still, Mr. Robertson holds, the spontaneous tendency of the untrained mind. This book was written at a time when the bankers' manifesto of 1926 protested against "false ideals of national interest," and "the economic folly which treats all trading as a form of war." Since then much has happened to encourage the instinctive tendency, as shown both by the more recent manifesto of bankers, and the inclination of even Liberal inquiries. Protectionism is perhaps the more instinctive tendency; as shown in proposals to give priorities of various kinds to home investment and produce. This instinct of Protectionism has, since this book was published, done much to sap the strength of the opposition to Protection, in the narrower sense of import duties. Mr. Robertson's book is designed to help Free Traders who feel themselves slipping; it is the polemic of a scholar.

D. H. MACGREGOR

The Bread of Britain. By A. H. HURST. (Oxford University Press. 1930. Pp. ix + 79. 2s 6d.)

THIS little book comes from the pen of one who was for many years actively engaged in the grain trade of the country, the present situation of which its author regards as alarming. His premises—doubtless only to a minor degree disputable—are as follows: "Under existing conditions, the free flow of grain to the United Kingdom is interfered with. Many important interests of this country have, therefore, been placed in an unfavourable position. This condition of affairs has been growing for some time, but it is only in recent years that it has become so accentuated as to change completely the economics of the importation of wheat

into this country. There is no longer a free market." Remedially, he pleads, in effect, for the establishment of a Wheat Purchasing Board, concurrently with the economic restoration of the individual grain merchant. As an historian, when briefly tracing the evolution of the British grain trade, Mr. Hurst is perfectly fair and orthodox; nor, as an economist, can he be criticised, when he deals firmly with the popular misunderstandings concerning the effects of "hedging," the so-called "dumping" of German wheat and the disparity between the movements in wheat and flour prices. Upon all these matters, and others associated with the physical and financial transference of cereals from the overseas producer to the home consumer, he proves a sound guide and informant. His principal fear, viz. that the reduced number of British merchants and of millers will prove disastrous to future supplies and prices, dominates his constructive proposals, in which, incidentally, the position of the home producer is scarcely considered. So far as the former class is concerned, it is obvious that no precise figures can be adduced, but on p. 32 it is stated that nowadays "about 70 per cent. of the buying practically passes him (the grain merchant) by," for, it is alleged, this functionary has been crushed by the irresistible pressure of the upper millstone of concentrated selling—the Canadian wheat pools—and the nether millstone of concentrated buying—the British milling combines. Three of these latter bodies are stated to be responsible for 62.5 per cent. of all the flour milled in this country. Whatever the precise extent of the danger adumbrated here, it is perhaps doubtful if the writer has paid sufficient attention to the present-day economic tendency to concentrate large and efficient mills at the ports of entry and thereby to hasten the elimination of the small inland undertaking. Incidentally, no mention is made of the handicap under which the large mills suffer when working, as they so often have done since the war, well below their full capacity, nor is there any comparison offered between pre-war and post-war wages obtained by their employees. Fluctuations in the price of wheat are treated of mainly in conjunction with hedging, which latter operation has become, it is said, "inoperative," since "factors other than those associated with supply and demand now dominate the world's markets." The following two sentences (the first of which, unlike the bulk of Mr. Hurst's writing, is not very happy in phraseology) sum up these views. "It has been a common experience of grain merchants that ordinary profits on the delivery of grain sold in the usual course of business would have shown considerable profits, were it not that

their losses on their hedges considerably exceeded their ordinary trading profits. This is the final accounting proof of the harmfulness of hedges under existing conditions, and shows conclusively that a free market in wheat no longer exists. Hedging is the very badge of a free market."

If publication of this book had been deferred for a few months it is tempting to wonder what its author would have felt constrained to say concerning the impotence of the United States Federal Farm Board in the face of steadily falling prices and when backed by almost unlimited financial aid, for, on p. 21, we read that it "has already been unusually effective," and again that "an organisation capable of controlling the price-level of the export of American grain does not always require to act in order to achieve its purposes," for "its mere presence and the constant threat of implied action are enough to cause hesitancy where formerly markets were free." Admittedly, as here, the elapse of time is likely to modify particular aspects of the gigantic problem surveyed by Mr. Hurst, and, again, it is easy to pick holes in certain of his arguments, but the fact remains that he has put together an extremely fair and very interesting statement. He stands, too, where many other persons outside his trade stand, for he merely asks that a full and official inquiry should be made into a condition of affairs that, if transitional, is certainly obscure, and the elucidation of which could not fail to have beneficial results.

J. A. VENN

Labour Organisation. By J. CUNNISON. M.A. (Pitman & Sons, Ltd. 1930. Pp. 272. 7s. 6d.)

THE theme of Mr. Cunnison's book is the development, significance and purpose of trade unions in modern industry, and the manner of it gives rise to the pleasing reflection that trade unionism can now be judged fairly by its fruits, instead of being condemned on the arguments of its sympathisers or commended on the criticisms of its opponents. In other words, Mr. Cunnison's treatment is competent and cautious, and he presents a very fair picture of the present position and tendencies in so far as these can be adequately gauged under rapidly changing conditions. The book is also a model of clear exposition; facts are not subordinated to theory, but they are throughout illuminated and held in place by it.

In the first chapter the nature of a trade union as an association for the sale of the peculiar product labour, is analysed, and

the duties which necessarily arise under existing conditions for the successful performance of this function are indicated. The second chapter at once raises the pertinent question of the legal rights of such an association, and gives an admirably clear account of the development of the position of trade unions before the law, the connection between that position and the changes in events and in public opinion which have contributed to it, and which make the oscillations in it reasonable and intelligible, being very well brought out. Then follow six chapters (III-VIII) dealing with the problems of structure, government and methods of policy, while the three remaining chapters (IX-XI) are concerned with more external aspects, political, international and social.

In a book so well balanced and so full of matter of general interest it may seem invidious to pick out any one aspect for detailed critical comment, but the real kernel of the trade union problem lies in Chapters III-VIII, and here it is perhaps in places that a little less caution might have removed some cobwebs and left a clearer impression of the existing position as a whole.

In discussing the basis of organisation, craft or industry, Mr. Cunnison truly says we are thrown back here to the purpose of association, and to the question whether that purpose is more likely to be attained by union according to process, or according to product. He further says, "The preference for the one or the other will be determined by the general industrial outlook of their respective advocates" (p. 56). But this hardly touches the root of the matter. The organisation of labour must be determined largely by the organisation of capital, and capital in industry is undoubtedly reorganising so as to increase its grip on the product. Labour organisation if it is to perform its economic function must perforce move in this direction also. Reduced to its elements the problem is primarily one of wage principles, and the shift from craft to industry reflects the shift in emphasis and in trade union function which is taking place therein. These considerations are not without their bearing on the question of negotiation dealt with in Chapter V. In a section on Arbitration it is stated, "Nor does an arbitrator possess any secret for the solution of industrial conundrums. He cannot even make reference, as is done in civil disputes, to legal statute or to precedent or to accepted principles—for there are none to guide him" (p. 113). Surely, in view of the Trade Boards Acts, the Fair Wages Resolution of the House of Commons, the Agricultural Wages (Regulation) Act, and the published decisions of the Industrial Court, this is now too sweeping a statement. It seems

also a little misleading to say that the line of development "has been from the appeal to the individual arbitrator, who was required to give a personal decision on economic grounds, to the appeal to the public to exercise the force of its opinion, based not merely on economic considerations but on the sense of justice" (p. 121). The grounds of a decision cannot arise out of the nature of the arbitrator in this way. They must arise out of the nature of the dispute itself. If equal competence be assumed, the difference between the private arbitrator and the general public lies only in the latter's greater power to compel enforcement, and certainly not in the degree in which justice is or is not conceived to be involved.

Of the many other aspects of trade union policy with which Mr. Cunnison deals, special attention may be directed to his sane handling of the question of political action.

MARY T. RANKIN

University of Edinburgh.

The Public Control of Business. By D. M. KEEZER and S. MAY (Harper and Bros. 1930. Pp. xi + 267. 12s. 6d.)

Electrical Utilities: The Crisis in Public Control. By W. E. MOSHER and Others. (Harper and Bros. 1929. Pp. xx + 335. 16s.)

IN 1914 the problem of the relation of government to business in the United States was believed by many to be well on the way to a satisfactory solution. "Through control by commission," Van Hise wrote, "we may secure freedom for fair competition, elimination of unfair practices, conservation of natural resources, and reasonable prices." This opinion would seem to have been unduly sanguine.

Mr. Keezer and Mr. May take certain central phases of the problems and seek to give them a unity and perspective not to be found in the specialised studies. They distinguish three methods of controlling business activity—the enforcement of the anti-trust laws, the regulation of industries effected with a public interest and the policy of government ownership and operation. The bulk of their work is devoted to a severe criticism of the existing system of public control. According to them, the outstanding limitation upon the success of the anti-trust laws has been the decision of the United States Supreme Court on the question of size. Its consequence has been to legalise almost any degree of concentration of economic power. If real competition

is to be ensured, this judicial decision must be abandoned. If the regulation of services and rates applied to enterprises affected with a public interest is to be effective, there are two other decisions of the Supreme Court which cannot be allowed to stand : (1) that operating expenses may be disallowed only in cases where "abuse of discretion" on the part of a company's directors or management can be proved, (2) that a preponderant weight be given to reproduction cost in determining valuation of public interest properties for rate-making purposes. Our authors turn next to personnel questions. They advocate a considerable increase in salaries in order to attract and hold able men to the service of the Federal and State commissions. At present, salaries are too low to meet the competition of the public utility enterprises. Proposals are also made for dealing with the lack of co-operation and co-ordination between the several administrative agencies. At present there is much duplication and conflict of effort.

The general impression left by this book is that the attempts to regulate business activity through the anti-trust and the public interest laws have failed. Another method must be tried. "The Government may enter into direct participation in business, not upon a monopoly basis but in direct competition with private enterprises." The implications of this are not worked out.

Though much of its criticism follows familiar lines, this book can be recommended as a clear, compact and readable exposition of the subject. The complexities of the general problem, however, are more involved than Mr. Keezer and Mr. May would seem to have realised.

The regulation of a single public utility—the electrical industry—forms the subject of a special investigation conducted by Professor Mosher and his colleagues of Syracuse University. It covers much of the ground traversed by Mr. Keezer and Mr. May. The electrical industry, however, has peculiar problems of its own : notably the difficulty of grappling with the involved structures of the holding companies, which now dominate the operating companies and the whole range of inter-state activities. Regulation by public commissions seems definitely to have failed in this case. The State commissions fall far short of satisfactory performance of their functions. "The only Federal agency with any jurisdiction over the electrical industry is so seriously handicapped in both organisation and staff that it is all but impotent to carry out even the functions now imposed on it by law." "The present policy of high rates, of resisting control at every

point, of secretiveness with regard to financial operations and of dubious manipulation of public opinion will be but the initial step in the direction of a public power monopoly." Professor Mosher feels that a limited number of large-scale, strategically situated generating plants operating under governmental authority would provide measuring-rods. These would have a wholesome effect on rate structures all over the country. At present there are no standard rate schedules or accounting methods. There is no sound auditing procedure. It is thus impossible for regulating bodies to determine basic rates and make effective comparisons.

Much of the information contained in Professor Mosher's weighty volume can be found in a far more lively and attractive work, *Power Control*, by H. S. Raushenbush and H. W. Laidler (New Republic, Inc., New York, 1928).

J. LEMBERGER

University of Belfast.

Die Konkurrenz. By GEORG HALM. (Munich and Leipzig. 1929. Pp. 182.)

THE object of the author of this book is not so much to praise competition as to bury Socialism—or rather, to bury the opinion "dass unsere freie, kapitalistische Konkurrenzwirtschaft mit innerer Notwendigkeit in eine gebundene, sozialistische Gemeinwirtschaft übergehen werde." The seven divisions of his interesting funeral oration approach the subject from very different angles and form a series of essays almost any one of which may be read and understood without reference to the rest, so long as the fact is kept in mind that the issue is not so much the merits and demerits of competition in the abstract, as the relative practicability of the competitive and socialist economies.

In the first of the seven essays the author attempts a theoretical demonstration of the indispensability of competition. He develops some interesting views on the connection between the entrepreneur function and cost, but the argument would probably have been stronger if the hair-splitting concept of the *Erwerbstreben* had not been pressed into service. In the next two essays, special critical attention is devoted to two modern socialist systems, of which the outstanding common characteristic is an attempt to secure the benefits of pricing without the aid of competition. (Professor Halm considers that all more extreme forms of Socialism have already been so deeply buried by Professor Mises as to render any further spade-work on their behalf unnecessary.) In Chapter IV the critical argument is dropped and some

of the usual objections to competition are met in a fairly convincing manner.

It is Chapters V and VI, however, that contain the author's main attack on the opinion that the present economic system is developing into Socialism. The arguments of Chapters I to IV having convinced him that such a transformation as this would be highly undesirable, an optimistic but unorthodox logic permits him to conclude that it is, in fact, non-existent. He is thus faced with the task of explaining why all the other economists of his acquaintance are marching out of step, a task which he fulfils by admitting that a change is taking place, but by denying that it is a change from free competition to monopoly.

Professor Halm's argument seems to call for one or two comments. In the first place, many of its steps are not very convincing. The view that it is not free competition but cut-throat competition that leads to combination fails to prove anything in the absence of a discussion of the relations between free and cut-throat competition. And Professor Halm's attitude towards those changes in technique which lead to increases in the normal scale of production is distinctly reminiscent of King Canute.

But even if the argument were logically irreproachable, it would not be very comforting. Professor Halm finds a weak point in the armour of some of those whom he criticises in the fact that they regard as a development towards monopoly what is, in fact, only a development towards a new form of competition. But he himself makes a very similar error in confusing the new form of competition with the "free" competition spoken of by J. S. Mill and others to whom he refers. Professor Halm seems to believe that the theory of "free" competition may be applied to any state of the market short of pure monopoly; that competition, however much it may be "modified," is still competition; that *plus ça change*, in fact, *plus c'est la même chose*. But this is an assumption that will hardly command universal assent.

Fortunately, Professor Halm's theory appears to be not only inadmissible and ineffective, but also quite unnecessary. The belief that "the majority of modern theorists" hold the opinion that the tendencies to combination in the modern economy must be interpreted as an evolution towards Socialism appears to rest on a very narrow foundation. Amonn, Cassel, J. M. Keynes, Oppenheimer, Schumpeter, Sombart, Webb and *Britain's Industrial Future* are quoted repeatedly; but there are no references to such names as J. M. Clark, Hawtrey, Henderson, Pigou and

Robertson. That monopolistic competition is nowadays a much commoner phenomenon than it was in 1848 may readily be granted; that most writers regard this state of affairs as a prelude to a socialist regime is a much more debatable question. Even in Germany there would appear to exist economists besides the author of the book under review whose attitude is quite different.¹ But this, of course, by no means implies that the unbelievers have no better reasons for their scepticism than those advanced by Professor Halm.

Die Konkurrenz can, in fact, hardly be reckoned a success, seeing that so many of its most important conclusions are invalidated by the lack of a clear distinction between monopolistic and free competition. On the other hand, to call it a failure would be to overlook the real value of such good pieces of work as the criticisms of the systems of Cassel and Oppenheimer in Chapters II and III, the candid examination of the disadvantages of competition in Chapter IV, and the remarks on the functions and powers of trade unions and employers' federations and the description of the genesis and effects of cut-throat competition in Chapter VI.

HAROLD E. BATSON

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Die deutschen Tribute: zwölf Reden. By PROFESSOR EDGAR SALIN. (Berlin: Reimar Hobbing. 1930. Pp. 248. 5 m.)

IN these addresses Dr. Salin, of Basel University, surveys the trying experiences through which Germany has passed since 1918, and discusses the ethics and legality of the revised reparation agreement accepted by Germany and her creditors on June 7, 1929. It is the avowed purpose of the book to combat the idea that the Young "Plan" is or can be a permanent settlement; but holding such strong views as he does on the questions of war guilt and reparation liability, it is a pity, from his standpoint, that the author did not speak his mind before instead of after the conferences of Paris and The Hague. Basing his case on the Lansing agreement with the Government of the late Empire, he estimates the total liability which can be rightfully imposed on Germany at 45 milliards of marks (say 2,250 million pounds). Towards this amount he asserts that, on a moderate calculation, 34½ milliards of marks had been paid (in cash, materials, services and ceded State property) up to August 31 last, when the Dawes

¹ See, for instance, Dr. Josef Dobretsbergers's article on "Wandlungen der Monopoltheorie" in Schmoller's *Jahrbuch*, vol. 53, pp. 701-22, October 1929.

"Plan" ran out. He contends, therefore, that only a further 10½ milliards remained still due at that date, and that German policy should now be concentrated upon the task of convincing the creditor nations and the world at large that when this sum has been paid the account must be regarded as closed. This is in his opinion the only rational and possible "final solution" (*Endlösung*) of the "tribute" problem, for "neither Germany nor Europe nor the world can survive for another decade the senseless and illegal bartering over reparation for the war of a generation already dying out without the fateful crippling of all constructive and creative forces." He believes that the strongest resistance to this view will come not from Great Britain, but from France, Italy and America, yet he has faith that all countries alike will eventually agree to face and accept the stern logic of facts. So far as this country is concerned, Dr. Salin may be sure that, without corresponding action by America, no British Government would consent to reduce further the debts due from our late Allies, or yet to make the repayment of those debts dependent upon any new revision of the reparations in Germany's favour. It is worthy of note, as illustrating the author's concern to avoid over-statement, that in estimating the amount of Germany's payments to the Allied Powers so far he has the courage and good sense to disclaim as grossly exaggerated and fanciful the estimate to which Brentano gave his name and authority.

W. H. DAWSON

Die Dynamik der theoretischen Nationalökonomie. By RUDOLPH STRELLER. (Tubingen, 1928. Pp. 225.)

At the beginning of this book, indeed in its title, Dr. Streller promises us a general inquiry into economic dynamics, and commences the inquiry with a methodological section in which the limits and limitations of statics and the aims and methods of dynamics are discussed. A particularly welcome chapter is that containing an examination of the validity of marginalist doctrine and a defence of it against that misunderstanding and misrepresentation for which some German schools of thought are responsible. Much of this section is devoted to the repetition and expansion of the conclusions reached in the author's earlier book, on the part played by the time-element in distinguishing statics from dynamics. Dr. Streller has, in fact, perhaps too great a fondness for this time-element, and sometimes introduces it into situations where its presence is a little unhelpful.

In the second section of the book, building upon foundations laid over thirty years ago by J. B. Clark, Dr. Streller develops a theory of price and distribution. His Distribution Theory really does deal with distribution, and not merely with the pricing of the factors of production, and is based on a useful division of the income-receiving members of an economy into those whose income is explicable upon static assumptions, those whose income is explicable only upon dynamical assumptions, and those whose income is explicable only by assuming the perpetuation of a state of disequilibrium. That is to say, into receivers of wages and rent, receivers of profit and interest, and receivers of certain sorts of monopoly-gain. The best part of this section is the discussion of the relations between the various groups of *Wirtschaftssubjekten* and society. This theoretical apparatus lends itself to particularly happy employment in the demonstration of the differences between individualism and the policy of *laissez-faire*. The attempt to supply yet another basis for Böhm-Bawerk's doctrine of the under-valuation of future wealth is also worthy of attention.

Although Dr. Streller's use of the concept of static, dynamic and pseudo-static economic "subjects" leads to these and other useful immediate results, one awaits with interest its wider use as part of a new engine for the discovery of economic truth. It is therefore a little disappointing to find that the remainder of the book—a mere 22 pages—contains nothing more startlingly new than the exposition of a new theory of the business cycle. The discussion is greatly simplified, no doubt, by the employment of the ordinary logical device of dealing with only one variable at a time. But Dr. Streller does not employ this device in accordance with the rules of logic. Disdaining to make use of the pound *ceteris paribus*, he allows his other variables to roam freely, without making any later attempt even to catch and brand them. Not every one of his readers will be satisfied that this procedure is legitimate. The cause which he does permit himself to consider as coming within the scope of his theory is the method of distributing income among the "static," "dynamic" and "pseudo-static" members of society. Any criticism of this last part of the book would, however, be incomplete if it contained no reference to the excellent remarks on the methodology of business cycle theory.

But if we are to judge this work as a real "Versuch, diejenigen Probleme, die sich auf Grund logischer Ueberlegung als 'dynamische' erkennen lassen, der Lösung näherzubringen," we can

only wonder at the large amount of territory which Dr. Streller has left totally unexplored. He himself has explained how much wider the dynamic field is than the static; it is difficult to imagine why he should be content to show such a faith by such scanty works. Of course, the boundaries of a *Konjunkturtheorie* may be drawn so wide as to embrace the whole field of dynamic economics, just as the boundaries of a theory of Price Equilibrium may encircle the whole of the static field. But the *Konjunkturtheorie* which performs this service will be a much more complex body of thought than this of Dr. Streller's. His book certainly cannot be acclaimed as that "erste Theorie auf einem fast unerschlossenen Gebiete" to which, on p. 3, he refers. Nevertheless, when that pioneer theory comes to be constructed, its constructor will have reason to be very grateful for the work of Dr. Streller.

HAROLD E. BATSON

Prospettive economiche, 1930. By G. MORTARA. (Università Bocconi di Milano. 1930. Pp. xxiii + 538.)

IN his introductory survey to the tenth volume of *Prospettive economiche*, Professor Mortara derives comfort from the fact that, despite the existence of depression in certain countries and in certain industries, the aggregates of world trade, production and consumption, during the period he is surveying, afford satisfactory evidence of growth. "In spite of all obstacles the factors of economic progress are constantly accumulating and becoming stronger." The figures on which he bases this conclusion, however, do not extend for the most part beyond the middle of 1929, and he may have cause in his next volume, when the figures for 1930 are available, to modify the above statement and also to regard the sequel to the collapse of the New York Stock Exchange boom as something more than "a reaction from the excesses of speculative activity, which had momentarily caused some embarrassment in the North American economy, though without paralysing its formidable power of expansion."

It is impossible even to indicate the wealth of comparative statistical data contained in this volume; the reviewer can only pick out one or two fragments from his catch in the hope of inducing others to fish in the same stream.

The following table seems to afford scope for no small amount of economic and even of political deductions; it represents (in kilogrammes) the quantity of cereals of all kinds, and of potatoes,
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available per head of population for the average of the two years 1927 and 1928.

Country.	Cereals.		Potatoes.
	Including seed.	Excluding seed.	Including seed.
Italy	305	282	38
Great Britain and Northern Ireland	300	289	125
Spain	354	320	164
Poland	415	375	904
France	413	378	350
Germany	440	406	620
Europe (excluding U.S.S.R.)	387	357	339
U.S.S.R.	479	431	268

Referring to this table, Professor Mortara says: "It has been calculated that in Italy, just before the War, about 60 per cent. of the total energy value of human food-stuffs was furnished by cereals. The present proportion is certainly not much different; while the corresponding proportions for the United States and Great Britain do not reach 35 per cent. For France the proportion would be in the neighbourhood of 50 per cent., and for Russia (U.S.S.R.) 75 per cent."

Some light is thrown on international competition in cotton goods by a table showing the average values (reduced here to £ sterling) per metric cwt. of the cotton cloth manufactures (*tessuti*) exported by five European countries. The figures are admittedly not strictly comparable, but the relative price movements are of interest:

	1925.	1926.	1927.	1928.	1929. (Jan. to Sept.).
	£.	£.	£.	£.	£.
Great Britain	39.1	34.1	31.3	33.9	31.0
France	43.5	36.0	35.5	32.0	33.9
Germany	65.1	6.03	56.6	61.1	58.4
Italy	28.1	29.0	27.4	26.6	25.1
Czecho-Slovakia	32.4	30.3	28.2	31.1	29.5

The available statistics indicate that in recent years the world consumption of cotton manufactures has grown more rapidly than the increase in world population, but Professor Mortara holds that the factors tending to the disadvantage of the European, but above all of the British cotton industry, are permanent in character and will become even more pronounced with time.

Lastly, the following figures of average monthly output of pig

iron in 1928 per furnace in blast may be cited as pointing to the difficulties under which that branch of the metallurgical industry must be working in this country in view of the relatively small scale of production prevalent here : Great Britain, 3,940 tons ; France, 5,550 tons ; Belgium, 5,750 tons ; Germany, 9,640 tons ; the United States 16,430 tons.

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A History of the English Corn Laws. By DONALD G. BARNES.
(Routledge. Pp. xv + 336. 15s.)

MR. BARNES, who is now Professor of History in the University of Oregon, collected the materials for this book several years ago while a research student at London and Cambridge. The thoroughness with which he did his work may be judged from the list of nearly a thousand contemporary pamphlets given in the bibliography, practically all of which the author assures us he has examined. The result is an exhaustive history of the English corn laws which will immediately take its place as a standard work of reference. Mr. Barnes has had surprisingly few precursors in the field which he has chosen. Practically the only serious work which attempts to cover the whole ground is the late Professor Nicholson's little *History of the English Corn Laws*, but Nicholson's book provides no more than a sketch, though a masterly and illuminating sketch. It has been left for Mr. Barnes to fill in the details and to clothe the skeleton with flesh.

Corn laws have different objects. Their aim may be to regulate the import trade, the export trade or the domestic trade in corn. After the Restoration the regulation of the internal trade fell into the background, though the statutory restrictions on the activities of the corn-dealer were not removed till 1772, and even after that, as the Rusby case showed in 1800, forestalling and regrating remained indictable offences at common law. But generally speaking it was the regulation of the export trade that occupied the attention of the legislature from 1660 to 1815. Mr. Barnes speaks on the whole favourably of this period. Notwithstanding the adverse judgment of Adam Smith, he gives his approval to the policy of the Corn Bounty Act of 1689. It had become necessary, he says, to secure a market for England's surplus grain, and "the bounty unquestionably aided in finding one." At the same time, the bounty "was one of the factors contributing to the immense increase in the production of English

corn, and as such was decidedly worth while." It is hardly necessary to remark that these are two different and not quite compatible grounds of approval. With regard to the practical working of the Act, Mr. Barnes brings to light some interesting facts. He shows that there was no administrative machinery to fix official prices for the purpose of the bounty. The attempt to impose this duty on the justices of the peace failed, and the customs authorities were driven to rely on the unsupported declarations of the exporting merchants, a procedure which was technically illegal. Another interesting point is that no appropriation or subsidy was ever voted by Parliament for the payment of the bounty. The custom-house officers met claims out of funds in their hands derived from import duties. When about 1750 these funds ceased to be sufficient and the Treasury had to make good the deficit, criticism began to fasten on the corn laws, and the movement was initiated which led up to the important law of 1773.

From 1815 onwards, Mr. Barnes is traversing fairly familiar ground, but he contrives to throw interesting sidelights on some neglected aspects of later corn law history. He brings out the proper significance of the anti-corn law agitation which developed during the eighteen-twenties; a newspaper and pamphlet agitation, it is true, but one which anticipated most of the arguments used later with such deadly effect by the Anti-Corn Law League. The decline of this agitation about 1828 was due to the growing conviction amongst its supporters that nothing could be obtained from an unreformed Parliament. But the Whigs after 1832 did as little as the Tories to remedy the grievance of the corn laws, and Mr. Barnes is probably right in conjecturing that "perhaps nothing except the Poor Law of 1834 did more to disillusion the labouring class of the cities about the beneficial results of the reform of the House of Commons." It required the bad harvests of 1836 and 1837 to set in motion the great agitation which was to bring the corn laws to an end.

Of the Anti-Corn Law League Mr. Barnes does not speak in terms of unqualified approval. He considers its campaign "somewhat unscrupulous," and shows that the orators of the League did not hesitate to use opportunist and often contradictory arguments. The movement was mainly a middle-class one. The Chartists were hostile, most of them being strong supporters of agricultural protection "because they believed that free trade in grain would throw out of cultivation a great deal of land and drive thousands of agricultural labourers to the factories to compete

and to reduce wages." It is interesting to learn that in the dialectical battles of the time the free-traders did not always have the best of it, and Mr. Barnes has done well to rescue from oblivion the names of George Game Day and other doughty defenders of protection, in whom the great Cobden himself found foemen worthy of his steel. Mr. Barnes' account of the League is a valuable corrective to the unduly favourable impression conveyed by Morley's *Life of Cobden*. Morley wrote too soon after Cobden's death to be critical, but the time for mere panegyric is long past, and an extended narrative which would develop the points touched on in Mr. Barnes' chapter is now overdue.

The explanation of Britain's solitary position as a free-trade country is, according to Mr. Barnes, fairly simple. For a brief period in British history the interests of manufacturers and consumers coincided and free trade triumphed. Nowhere else has this coincidence ever occurred, and therefore no country has followed Great Britain's example. The explanation is probably true, though it is disagreeable to be reminded how large a part chance and circumstance play in deciding the destinies of nations. Still there is no help for it. The historian, like the politician, has constantly to reverse Bishop Butler's maxim and inquire not how men in reason ought to behave, but how in practice they do behave. Causes seldom win or fail on their own merits alone. It required something more than an appeal to pure reason to establish the ascendancy of free trade over the minds of Englishmen. And if ever this ascendancy is undermined, it will almost certainly be through the use of somewhat similar methods.

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The Basic Industries and Social History of Japan, 1914-18. By USHISABURO KOBAYASHI. (The Carnegie Endowment for International Peace.) (Yale University Press. Pp. 280. 15s.)

THE difficulties facing the author of this book must have been enormous, for accurate statistics were hard to obtain, when they were not completely lacking. Nevertheless, a very large amount of information has been collected here and should be of considerable use to future researchers.

Unfortunately there are various blemishes which would hardly be expected in a book published under such auspices. The method of treatment of each subject is such that a good

deal of the text is repeated, sometimes more than once; there are some startling inaccuracies in figures, and there is a general air of no revision or complete reading having been made by any competent person with a full command of English; figures and tables are scattered about rather too freely, and there is no index.

On p. 25, index figures for wages are given month by month for 1917, rising steadily from 147 in January to 198 in December, and the average for the year is given as 198. On p. 45, the year 1925 is presumably a misprint for 1918. On p. 83, the increase in value of artificial fertilisers produced is given as 250 per cent. instead of 150 per cent. The general obscurity of p. 87 is increased by a misprint of Yen 900,000 for Yen 1,180,000.

The first part of the book deals with agriculture, the second with mining and metallurgy, and the third with forestry and fisheries. The fourth and last part is an attempt to sum up the measures adopted by the Government, banks and private associations in their efforts to produce various economic results, followed by an estimate of the social effects of the war. There is a good deal of valuable information collected in the first three parts, but the difficulty of forming conclusions or generalising from it is well illustrated by the following quotations:

P. 15. "Although Japan was a belligerent she did not directly experience the destructive effects of the war, but was principally affected by her position as a supplier of war materials. The resultant prosperity of her foreign trade went a long way towards increasing the income of individuals, who, in turn, raised their standard of living and increased their buying power. Among the lower classes, who consist for the most part of labouring people, the changes wrought were phenomenal. Those things which they had regarded as luxuries and beyond their reach became accessible to them. Those who had formerly eaten wheat and other cheaper cereals now became consumers of rice, the costliest of cereal foods."

P. 23. "But the chief causes (of the rise in price of rice) were the remarkable expansion of the buying power of the people, especially the lower classes, who found in the war a tremendous opportunity to enrich themselves . . ."

P. 261. "And when we come to the lower classes, always open and susceptible to the spirit of radicalism, it was not uncommon for workers either to go on strike or to idle away

their time at work, in order to force their employers to grant them shorter hours of work and higher rates of wages. While this may have been due to their awakening, through the novel circumstances of the time, or to the contamination of Western thought, a truer reason was that their wages did not keep pace with the increase in the cost of living."

It is strange to find, in a book with so comprehensive a title, no reference to cotton growing and manufacture, for cotton goods made up some 15 per cent. of Japan's exports before the war, and the cotton industry was the largest of all her factory industries. A further omission is any mention of the Twenty-one Demands presented to China (with consequent activity in the Yangtse valley, Manchuria and Shantung, which must have had far-reaching influences in Japan) and of loans to China of some £25,000,000 in 1918.

The accounts given of government efforts to bolster up rice prices, and later to limit them, and of the rapid growth of industries in a country previously largely dependent on imports, are most interesting. It is unfortunate that the tragedy of the earthquake should have prevented the gradual working out of the changes caused by the war, and that it should have added considerably to the difficulty of collecting information for this book.

C. A. ASHLEY

The Penetration of Money Economy in Japan. By MATSUYO TAKIZAWA. (Columbia University Press. Pp. 155. 9s.)

THIS book suffers from the fault that much of the information given is repeated once or oftener in succeeding chapters. It is, however, pleasantly written, and easy to read and to follow.

The titles of the chief chapters are · The Development of Money Economy, The Effect of Money upon the Development of Towns, The Decline of the Village Community, The Decline of the Samurai Class, The Ascendancy of the Moneyed Class, The Disintegration of the Old Family System. It is evident that the main argument of these chapters must be a common one, and that most of the evidence might find an appropriate place in almost any of the chapters.

The facts that are presented are usually of a general nature and illustrative of general tendencies; the period covered is over six hundred years, and dates are given infrequently. Had the question been approached on a chronological basis a much shorter, but much more satisfactory book would have resulted.

The efforts of successive governments to control prices, maintain existing conditions of life, solve currency problems, and yet command a measure of popular support are interestingly described. The failure of ministries in similar efforts during the war (as described in the book reviewed above) shows again how difficult it is for a government to take advantage of past experience.

C. A. ASHLEY

The Meaning of Rationalisation. By L. URWICK, O.B.E., M.C., M.A. (London: Nisbet: 1929. Pp. 160. Price 7s. 6d.)

THIS admirable work by the Director of the International Management Institute rather suggests the paradox that in Great Britain far too little has been done to rationalise, and yet in another sense too much. Employers and others have shown too little readiness to approach and consider the subject, and Mr. Urwick holds that "the leaders of labour have been far more willing to view the new conception carefully, if not with favour, than the majority of employers." This, no doubt, as he points out, is largely attributable to the fact that rationalisation of an industry, the co-ordinated control of individuals by the industry as a whole, is in many ways a step towards "the wider ideals of organised labour," and away from the individualistic ideas still so strong with employers. Moreover, if taken as a mass, employers do not welcome the new idea, relative lack of earlier experience of co-ordinated action puts them in many ways at a disadvantage. For "the practice gained by German industrialists in cartel organisation prior to the war has enormously facilitated the readjustments called for by rationalisation."

On the other hand, organisations for promoting rationalisation or one or other of its features are too numerous and far too little co-ordinated. Whilst many do admirable work, some "are of inferior value or distinguished rather by moral enthusiasm than by effective methods, and irritate the practical business man who seeks to use them." Indeed, Mr. Urwick points out that the very multiplicity of organisations is apt to lead sympathetic employers to concentrate unduly on one or two of them to the neglect of the wider general problem. In short, among the things needing to be rationalised is rationalisation.

From these and other circumstances Mr. Urwick draws various conclusions. He emphasises, adopting the phrase used by F. W. Taylor in regard to scientific management, that rationalisation is "a mental revolution," that "it is a new attitude to

industrial management," and that full success will not come unless managers of large unified concerns "escape entirely from the habits of mind associated with the direct management of smaller enterprises." Along with this, rationalisation is not a matter of single firms or single industries, but of a co-ordinated national effort, leading finally even to international co-operation. Moreover, on the national basis, co-ordination must embrace the work of the national government and the rationalisation of the work of the Civil Service Departments. "The only Minister who can be described at present as responsible to the Cabinet for measures effecting the general efficiency of British industry and commerce is the President of the Board of Trade, and he is sadly handicapped in any attempt to take a synoptic view of the whole situation." This is contrasted with the work of the official Department of Commerce in the United States and with the non-official German Reichskuratorium; but a beginning towards the proposal outlined by Mr. Urwick for the "creation of machinery for thought and study, similar in conception to the Committee of Imperial Defence," seems to have been provided, since the book's publication, in the Economic Advisory Committee. The excellent penultimate chapter, on "Some Suggestions for Action," contains an admirable survey of the place of British Government in rationalisation.

Such being the fundamental basis of the problem, Mr. Urwick has given us a very valuable and suggestive book. Most wisely he has devoted considerable space to the definition of his subject, both in a most interesting opening chapter and in the series of definitions by authoritative bodies and individuals contained in Appendix B. He has well emphasised in particular that "the grouping of businesses in large combinations and the elimination of inefficient producers" is too narrow an interpretation of its scope, as compared, for instance, with the view of the Reichskuratorium, that "it consists in understanding and applying every means of improving the general economic situation through systematic organisation."

Subsequently, Mr. Urwick attempts to bring the various problems of organisation into touch with the central scheme. Chapter V, for instance, has an admirable discussion of scientific management in relation to it, and a sympathetic appreciation of the work of F. W. Taylor. The latter himself held strongly that "standard conditions established by the management must precede standard performance demanded of the men." Indeed, Mr. Urwick, in explaining the earlier opposition of British Trade

Unionism to scientific management, hardly seems to allow sufficiently for the effect of the neglect of this principle and of Taylor's whole spirit by too many of his British imitators. There follow chapters on various other sides of the movement—Research, the Field of Management, and the Field of Administration; and in regard to the two last emphasis is well laid both on their necessary separation in the large modern business and on the need for co-ordinating them.

The whole book has a high value. By discussion it clarifies the meaning of rationalisation, which is still far too little understood in this country. It further, as already described, emphasises that rationalisation, as a movement, embraces all branches of the national economic life, nationally co-ordinated, with the object, as in Steuart's definition of Political Economy, "of providing a plentiful fund of subsistence for all." Lastly—and it is an important matter—the book urges that improvement in the general standard of living is an essential part of rationalisation, "to gain for the community," in the words of the Genoa Economic Conference resolution, "greater stability and a higher standard of life."

N. B. DEARLE

NOTES AND MEMORANDA

FINANCIAL REFORM AND THE INDIAN STATUTORY COMMISSION

THE recent publication of the Report of the Indian Statutory Commission, popularly known as the Simon Commission, has again brought to a head the all-important question of financial reform in India. There has in recent years been no problem in public finance in that country so urgent and so important as the need of greater harmonisation of central and provincial revenues and the necessity of tapping new sources to provide for the growing expenditure on nation-building services like education, sanitation and local self-government, which are the concern of Ministers in the provinces. The Commission had as its Financial Assessor Sir Walter Layton, editor of the *Economist* and the author of the recommendations on the financial side of the Report. The Commissioners indeed "accept and fully endorse the general principles of his scheme." In this paper it is proposed to set forth the salient features of the present system of finance, its strength and weakness; secondly, to describe the principles of the scheme of the Financial Assessor; and lastly, to comment on the proposals in their applicability to conditions as they obtain in India to-day.

I

Some of the main characteristics of the financial system of India, especially the importance of the taxation of land and indirect taxation,¹ are due to the predominantly agricultural conditions of the country, the self-sufficiency of the villages, the inequality of the distribution of incomes, the low standard of living and the precariousness of the rainfall, which makes budgeting a gamble in rain. There is a very great unevenness in the income distribution. There are very rich men side by side with extremely poor people, and the burden of taxation on the former presses very lightly as compared with the latter. "A poor cultivator," says the Commission, "who not only pays to the

¹ Land Revenue has fallen from 50 per cent. of the total tax revenue (central and provincial) in 1861-62 to 42 per cent. in the pre-war year 1913-14, and to 23 per cent. in 1928-29. Indirect taxation was 43 per cent. in 1861-62, 53 per cent. in 1914, and 66 per cent. in 1928-29.

State a substantial portion of his income from land, but also bears the burden of the duties on sugar, kerosene oil, salt, and other articles of general consumption, seems to receive very different treatment from the big zemindar or landholder in areas where 'permanent settlement' prevails, who owns extensive estates, for which he may pay to the State a merely nominal charge fixed over a century ago and declared to be unalterable for ever, while his agricultural income is totally exempt from income tax. Moreover, there are no death duties in India. . . . Whatever may be said for the Indian tariff, much of it cannot benefit the agriculturist." ¹

If India is to advance economically, money must be spent on the nation-building departments which will result in an increase in the standard of living. This means, as we shall see, more adequate revenues for the provinces, which must be strong units and autonomous in their financial requirements. In the past British India has had one of the most highly centralised and efficient governments in the world. The East India Company, both as a trading corporation and as a successor of the Moguls, had certain centralised characteristics. By the Charter Act of 1833 the Governor-General of Bengal became the Governor-General of India, and was invested with complete control over the finances of Bombay, Madras and other subordinate governments. These could not create any appointment or incur any expenditure without the sanction of the Central Government. The Acts of 1853 and 1858 continued the Government of India's control over all revenues and expenditures. The revenues of India were treated as one, and the provinces were refused any legal right to the revenue which they collected. Sir Richard Strachey has described how "the distribution of the public income degenerated into something like a scramble, in which the most violent had the advantage, with very little attention to reason; as local economy brought no local advantage, the stimulus to avoid waste was reduced to a minimum, and as no local growth of the income led to local means of improvement, the interest in developing the public revenues was also brought down to the lowest level." ² This over-centralisation, as every student of Indian finance knows, led to thoroughly inharmonious relations between the Government of India and provincial governments.

¹ *Report of the Indian Statutory Commission*, Vol. I. (Cmd. 3568), 1930, pp. 334-35.

² Sir John Strachey's *India*, 3rd edition, p. 113.

Lord Mayo's decentralisation scheme of 1870¹ gave to provincial governments the financial control of education, medical services (except medical establishments), police, jails, roads, buildings, registration and miscellaneous public improvements, and to meet the expenditure connected with these services a fixed assignment was made. If this proved insufficient, provincial taxation was to be imposed. In a Minute of 1870, Lord Mayo wrote with great truth: "I believe, as I have repeatedly said, that if we place administration of portions, both of our revenue and expenditure, in the hands of the Local Governments, it will lead to economy, to increased responsibility, to the avoidance of much administrative difficulty, and above all, it will enable the rulers of the country gradually to institute, in various parts of the empire, something in the shape of local self-government, and will eventually tend to associate more and more the natives of this country in the conduct of public affairs."² Unfortunately the expanding heads of revenue remained in the hands of the Central Government, while the expanding heads of expenditure went to the provinces—a feature which has been repeated after the Reforms introduced in 1921. Moreover, with a fixed assignment the provinces had no inducement to develop the revenues raised within their territories. In 1877, during the Viceroyalty of Lord Lytton, all provincial services were transferred to provincial governments, and in place of the fixed grants the whole or part of specified heads of revenue were given to meet such expenditure. Here we have for the first time a division of the heads of revenue. Indeed the main object was to give the provincial governments direct inducements to improve their existing revenues through good administration. Settlements took place, but not without the usual controversies, between 1882 and 1904. In the latter year these agreements were made quasi-permanent in order to give the provincial governments greater independence in the management of their finances, and no longer were these governments liable to have the provincial balances swept into the central exchequer on the expiry of the settlement. They were able to reap the reward of their own economies and were not rushed into spending, as hitherto, before the expiry of that settlement. The Central Government was also a gainer, because it knew its own position financially better than hitherto. It was also free from the usual quinquennial controversies. In 1912 settlements were made permanent and a

¹ Resolution No. 3334 of 14th December, 1870.

Minute dated 23rd June, 1870.

greater share of growing revenues was given to the provinces. There was less intervention in the preparation of provincial budgets. Considerable improvements were made in the management of famine relief, and in 1917 the Central Government agreed to share the responsibility for this expenditure in the proportion of 3 : 1 with provincial governments.

The Report on the Indian Constitutional Reforms, 1918, usually known as the Joint Report, recommended a complete separation of central and provincial finance in order to make provincial autonomy a reality. The Report held the view that in addition to customs, opium and salt, already central heads, income tax should also be a central head of revenue, because (1) a uniform rate throughout the country was thought to be possible only by making it a central subject, and (2) the province in which the tax was paid was not necessarily the province in which the income was earned. Land revenue was made a provincial subject because it was closely related to the administration of the rural areas and was closely connected with famine relief and irrigation. As there was to be no divided head, general stamps were to be made a central head, while irrigation, excise and judicial stamps were assigned to the provinces. The deficit of the Government of India resulting from the separation of sources was the supreme difficulty of the proposal. The Central deficit, amounting to Rs. 1,363 lakhs, was to be made good from provincial surpluses of Rs. 1,564 lakhs : ¹ 87 per cent., therefore, of the difference between the estimated gross revenues of each province under the new scheme and the normal expenditure was to be the contribution of each province. In order to give the greater taxing power to the provinces, certain heads of taxation were scheduled as reserved for the provinces, *e.g.* succession duties, while the residuary powers of taxation were left with the Central Government. It might have been better (and certainly it would have been more logical) to schedule the taxes of the Central Government and to give the remainder to the provinces, which had to undertake the important and growing expenditure connected with provincial services. The financial scheme of the Joint Report met with considerable criticism and opposition, especially from Madras and the United Provinces—both agricultural provinces—as well as from the industrial provinces of Bombay and Bengal, both of which objected to the income tax, the industrial complement of land revenue, being taken by the Central Government. A Committee called the

¹ 1 lakh = £7,500. 1 crore or 100 lakhs = £750,000.

Financial Relations Committee (usually known as the Meston Committee) was appointed by the Secretary of State, on the recommendations of the Government of India and the Parliamentary Joint Select Committee on the Government of India Bill, 1919, to advise on (a) the contributions to be paid by the various provinces to the Central Government for the financial year 1921-22; (b) the modification to be made in the provincial contributions thereafter with a view to their equitable distribution until there ceases to be an all-India deficit; (c) the future financing of the provincial loan accounts; and (d) whether the Government of Bombay should retain any share of the revenue derived from income tax.¹ The Committee held that under the terms of reference they had to accept the Scheme of the redistribution of revenues as laid down in the Joint Report on Constitutional Reforms unless they found the strongest reason for suggesting a change.

The main difference between financial devolution recommended by the Joint Report and the Meston Report was as follows :— In the former, 87 per cent. of the gross surplus of the provinces under the new scheme or of the increased spending power was to be taken by the Central Government in the form of contributions from the provinces. The Meston Committee, however, believed it to be impossible to fix a standard ratio of contributions capable of automatic change from year to year owing to the absence of statistical data. They took into consideration the indirect contributions of the provinces to the Central Government, especially customs and income tax, and made certain adjustments in the figure of Rs. 1,363 lakhs by eliminating provincial civil pensions and leave allowances drawn outside India. The figure was thus reduced to Rs. 983 lakhs, which was distributed among the provinces, not according to increased spending power, but after consideration of the financial strength and taxable capacity of each province based on the statistical information put at the disposal of the Committee. The figure of Rs. 983 lakhs was then split up according to a percentage fixed in the light of these facts in each province, as follows :—Bombay 13; Madras 17; Bengal 19; United Provinces 18; Punjab 9; Burma 6½; Bihar and Orissa 10; Central Provinces 5; Assam 2½; total 100. The Committee also recommended that there were disadvantages in ordinary circumstances of a system of provincial contributions. They suggested that the Central Government should direct its

¹ This clause (Clause d) was added later at the instance of the Government of Bombay.

policy in order to do away with them as early as possible, owing to the growth of customs revenue and the cutting down of military expenditure from the high-water mark of Rs. 87 crores (not) which it had reached in 1920-21. The Committee also remarked, in regard to direct taxation, that "We doubt if it will be possible permanently to exclude local governments from some form of direct taxation upon the industrial and commercial earnings of their people; and we recognise the natural anxiety of provinces to retain a share in a rapidly improving head of revenue."¹ The Parliamentary Committee in its Second Report made two changes of importance:—(1) That in no case should the initial contributions payable by any province be increased as recommended by the Meston Committee in regard to Bombay, Bengal, Bihar and Orissa, Central Provinces, and Assam.² The Committee also emphasised the peculiar financial difficulties of Bengal, and laid it down that "the contributions from the provinces to the Central Government should cease at the earliest possible moment." In view of this, contributions were completely remitted in the case of Bengal from 1922-23 and for all other provinces from 1928-29. The Committee also recommended that all provinces should share in the growth of revenue from income tax so far as that growth is due to an increase in the amount of the income assessed. The Parliamentary Committee as well as the Meston Committee thus realised that income tax could not remain only a central head of revenue. From the point of view of principle this is important.

II

It is necessary before dealing with the outlines of Sir Walter Layton's scheme to examine what Adam Smith would have called the "connecting principles." A Finance Minister has to pluck the feathers of the goose with as little squealing as possible. Not only must the system produce the required revenue, but it must be administratively practicable. It must, for example, be adapted in the case of India to a federal constitution. In other words, we have to consider the constitutional as well as the economic aspects of the proposal. Any satisfactory system must reconcile the claims of the provinces and constitutional limitations must be kept in view. The old doctrine of the separation of sources (viz. the direct taxes are the field of the provinces and indirect taxes that of the Central Government) was definitely

¹ *Financial Relations Committee*, Cmd. 724 (1920), p. 3.

Second Report from the Joint Select Committee (189-1920), p. 3.

rejected as an article of faith after the war. The Great War compelled federal governments to invade the field of direct taxation to an extent never dreamt of in the philosophy of public finance. Income taxation is now the chief head of federal tax revenues in the United States.¹ Twelve states of the Union also levy income tax. Canada introduced a Dominion income tax in 1917, and there is now an income tax in British Columbia, Manitoba and Prince Edward Island. In Australia from 1915-16 the Commonwealth had to impose heavy direct taxation in addition to the direct taxation on income levied by the States. Customs since the time of Alexander Hamilton has in all countries without exception been under federal control in order to ensure that there should be no impediments to provincial or inter-state commerce. Sir Walter Layton has laid down three cardinal principles. (1) That responsibility for imposing additional taxation is definitely laid upon those who will have to incur additional expenditure; (2) that sources of revenue appropriate to their requirements are available to those authorities who have urgent and expanding services to administer; and (3) that all parts of India shall make a not unfair contribution to common purposes.² Tested by these principles the financial system of India to-day is obviously unsatisfactory. It might have been possible to add three other widely recognised principles; viz. (4) that every person having taxable capacity should pay a direct personal tax to the Government under which he is domiciled and from which he receives protection and other benefits; (5) tangible property by whomsoever owned should be taxed by the jurisdiction in which it is located, for the simple reason that it receives protection and other governmental benefits; and (6) business carried on for profit in any locality should be taxed for the benefits received.

In regard to the first of these principles, experience since 1921-22 has shown that additional taxation in India has been levied chiefly in the form of customs, which is, as we have seen, a central head of revenue. Customs revenue in 1928-29 increased 44 per cent. over that in 1921-22, the first year of the Reforms. Land revenue, the mainstay of the provinces, and before the war the main source of revenue in India, did not increase. The figure for 1928-29 was actually $4\frac{1}{2}$ per cent. below that of 1921-22. Land revenue, in short, as a contribution to the cost of govern-

¹ 58 per cent. in 1928-29.

² Cf. *Report of the Indian Statutory Commission*, Vol. II. (Cmd. 3568), 1930, p. 211.

ment, has greatly declined, mainly due to its inelasticity through administrative or legislative impediments. Responsibility then for additional taxation is not laid upon those who have to incur most additional expenditure. It is in the provinces that this expenditure must be incurred. In regard to the second of Sir Walter Layton's principles, it is clear from what has already been said that sources are not available to those who have urgent and expanding needs, and in regard to his third principle it cannot be said that all parts of India are making equal sacrifices in the cause of education, sanitation and other services which raise the prosperity of the country as a whole. In regard to three other principles, it is unfortunately not the case that those having taxable capacity pay a direct personal tax to provincial governments, nor is tangible property or business taxed for the protection and benefits received. For these reasons the system of financial devolution introduced by the Government of India Act, 1919, stands condemned. The Indian Statutory Commission has well said that "success or failure in constitutional experiments depends largely on the extent to which those who have to operate them are provided with adequate revenues."¹ In other words, a sound financial scheme must provide sufficient resources so that, as has sometimes been said, the growing organism of self-government can draw air into its lungs and live.

The Indian Statutory Commission and the Financial Assessor considered three schemes providing for fiscal autonomy in the provinces, and at the same time assisting India towards a federation. The first of these was one suggested by a majority of the members of the Indian Central Committee, that all revenues, including customs and income tax, should be assigned to the provinces, which in turn should finance the Central Government. This, however, is theoretically and administratively indefensible because not only has it no precedent in any federation, but it would leave the Central Government independent of the provinces in regard to its expenditure, and at the same time able to demand from the provinces revenue to meet its requirements. Customs, moreover, must be a federal head so that there can be uniformity of rates throughout the country and no inter-provincial or inter-state customs barriers. The customs revenue collected at the ports cannot be said to belong to any province or provinces, but they are paid by people all over India, just as is the case of income tax paid at such centres as Bombay and Calcutta, the main

¹ *Op. cit.*, p. 131.

centres of India's commercial life. Another scheme is to transfer certain services at present undertaken by the provinces to the Central Government, which would finance these by grants-in-aid from Central funds. Experience in the United States of America and other federations has shown that there are many objections to this method. It stifles local initiative, especially in regard to the vital services which depend for their solution on the states. It attempts to create a uniform system into which all provincial administration must be cast. It may also serve as an excuse for the Central Government to ram down the throats of the provinces federal policies. It sometimes, if not usually, results in a transfer of wealth from the richer to the poorer provinces. On the other hand, it is argued that it brings in India a stimulus and leadership that could not come from any source other than the Central Government. Federal subsidies on the whole hamper progress towards responsible government, and in the words of the Assessor, "The scheme is at variance with the widely held view that political evolution of India requires the development of as large a class as possible of persons engaged in public work and administration and accustomed to public responsibilities. The most important school in which this class can be trained will be in the provinces, where provincial legislatures will have to grapple with and direct the development of social services, which, it is hoped, will take place in the years immediately ahead."¹ Centralisation, in short, is neither advisable nor practicable. The remaining plan is the one adopted by the Assessor, viz. a scheme by which provincial sources of revenue are supplemented by certain taxes collected by the Central Government on behalf of the province and distributed to them on an automatic basis. Sir Walter Layton recommends a scheme the main strength of which lies in the financial autonomy of the provinces and in its federal nature. He proposes to make it possible for provincial authorities, without extravagance but with great advantage to economic well-being, to increase expenditure in the provincial sphere by about Rs. 40 to 50 crores in ten years. He proposes to give provincial governments one-half of the collections of income tax on personal incomes, which will meet the claims of industrial provinces like Bombay and Bengal. This will involve the loss of revenue of Rs. 6 crores to the Central Government but a corresponding gain to provinces. Further, it is proposed to give the provinces a right to levy surcharges on personal incomes, as in Japan, France, Italy and other countries. This would give a

¹ *Op. cit.*, p. 249.

yield to the provinces, excluding Burma,¹ of Rs. 3 crores annually. The provinces would also be given the whole of the tax on agricultural income, estimated to be about Rs. 5 crores annually, at the end of ten years. He also suggests that terminal taxes may be levied by the provinces at every railway station at a low rate. The tax would be highly productive and would be restricted in order not to interfere with trade unduly or with general economic or commercial policy. "It is very desirable," says Sir Walter Layton, "that there should be the greatest possible freedom of movement of goods in India in order to encourage specialised production, which is one of the most important ways in which the standard of living can be raised. It is, moreover, difficult to impose taxes of this kind without putting a heavy burden upon short-distance traffic, and, indeed, it would be necessary to devise the scheme carefully in such a way as not to involve discrimination. But despite these objections, there is considerable justification in an extensive but poor country such as India for following the precedent, set in many European countries and elsewhere, of levying what in effect would be an internal consumption tax. The tax is an easily collected one, and, even if it were levied at a very low rate, would be very productive of revenue if generally applied."² He also suggests that the local cess on land should no longer be limited, as it is in many provinces, to one anna in the rupee, in view of the fact that land revenue no longer bears a high proportion of the net produce and, moreover, other cesses levied on land for Imperial purposes have been abolished. Thus at the end of ten years the revenue in the provinces would be increased by Rs. 6 crores from personal income taxes, Rs. 3 crores from surcharges on these personal income taxes, Rs. 5 crores from the taxation of agricultural income, Rs. 8 crores from terminal taxes, a total of Rs. 22 crores, together with Rs. 14 crores from a Provincial Fund, which is a very important part of the scheme. It is proposed to create a Provincial Fund consisting of excises on cigarettes and matches (Rs. 8 crores) and, when the Central budget situation permits, the duty on salt (Rs. 6 crores). The resources of this fund of all India excises collected annually will be distributed to the provinces on a *per capita* basis. Thus at the end of ten years it is estimated that the additional revenue to the provinces will be in the neighbourhood of Rs. 40 crores,

¹ Burma is excluded from the scheme in view of the fact that the Commission recommends that Burma should be separated from India and put direct under Imperial authorities in London.

² *Op. cit.*, p. 243.

allowing for a natural growth in present revenues. In 1929-30 provincial revenues were Rs. 78 crores. After a decade they should be at least Rs. 114 crores, while the Central budget should increase by Rs. 4½ crores after salt is transferred and opium has disappeared under the present opium policy. Before this latter surplus is available to the provinces the claim by Indian (Native) States to a share in customs money has to be considered.¹ On the other hand, the Native States may rightly be called on to pay an increased share of defence. The cost of the army has risen from Rs. 32 crores in the pre-war year to Rs. 55 crores. On a population basis the share of the increased cost of the army which could be debited to the Indian States would amount to nearly Rs. 5½ crores, a sum which would more than balance Rs. 4½ crores, the increase in the Central budget after ten years. To make joint consultation and action possible regarding powers falling within the scope of provincial finance, it is proposed to create an Inter-Provincial Finance Council, consisting of the Finance Member of the Government of India and provincial Finance Ministers, who would meet to consider proposals for initiating changes in taxes within the scope of the Provincial Fund. The right of making changes in regard to the Fund must rest with provincial Finance Ministers, who have to balance their budgets. The Federal Assembly would consider these proposals in a special session. The Fund is to be separate from the Central budget. The Provincial Fund is essentially a federal idea and provides for common rates of taxation, a common collecting agency with the maximum of fiscal independence of the provinces. The body interested in this Fund is the provinces, and it is to be controlled by the Federal Assembly acting on behalf of the provinces.

III

The strong points of the Scheme outlined by Sir Walter Layton are that it provides in its financial aspects for increased revenues for provincial purposes. Its object is the strengthening of the provincial governments, which will be able to raise the standard of living by greatly increased expenditure on vital services, especially education. In the second place, he sees that the essential problem is to estimate how much increased revenue will be required by the provinces and to show how that sum can be raised. The Scheme, while it necessitates the collection of national taxes by the Centre on behalf of the provinces, makes

¹ Cf. *op. cit.*, p. 271.

the provinces responsible for their imposition through an Inter-Provincial Finance Council and the Federal Assembly sitting in special session. This gives to the Scheme a federal character which is in harmony with the constitutional recommendations of the Indian Statutory Commission. The future development of India must be on federal lines, the Indian or Native States taking also their rightful place side by side with the Central Government and the fiscally independent provinces.

The main criticisms of the proposals from a financial point of view may be grouped under two heads—the feasibility or otherwise of new sources of revenue and the practical working of the Provincial Fund.

Of the new sources of revenue Sir Walter Layton has given considerable emphasis to direct taxation, which in this as in most Oriental countries is fraught with difficulties in the matter of collection. The assesses are unwilling to state their income, and it is not unusual for them to keep more than one set of books, one set being for the tax collector. Moreover, with widespread illiteracy accounts are often non-existent or kept in such a way that the income-tax collector has to guess the income of the assessee on the best information available. The advantages of direct taxation cannot be pressed too far in an agricultural country such as India, where much income cannot be assessed and where the population is living near the subsistence level. Indirect taxation, therefore, has considerable importance, and to-day it is 66 per cent. of total tax revenue as compared with 41 per cent. in Great Britain. Considerable improvements, however, can be made by adjusting burdens so that the richer classes pay a fair share comparatively. It is accordingly suggested to rectify the comparatively small yield from income tax by lowering the limits, which are undoubtedly high. The rate of progression also requires reconsideration, as it is not steep enough, especially between incomes of Rs. 5,000 and Rs. 100,000. No longer should income from foreign investments which is brought to India within three years be exempted. This is a reform considerably overdue. The increase from these changes in the income tax is taken at about Rs. 5 crores within the next ten years.¹ It is also proposed to get rid of the anomaly which has crept into the Indian income-tax system of exempting from taxation agricultural incomes—an exemption which did not

¹ A certain amount of the increase will be due from the result of higher taxation of composite income when agricultural income is included. Cf. *Indian Statutory Commission Report*, Vol. II, pp. 237 and 261.

exist between 1860 and 1873. The advantages would be great notwithstanding the administrative, legal and political difficulties. Non-agricultural earnings of people who own land would also be taxable at a higher rate. The taxation of moneylenders and others will therefore be raised, and this is a class who can well afford to pay. The Report suggests that the exemption should be removed by stages to avoid hardship. The full rate of income tax and super-tax would not be imposed on landholders until after a specified date, the exemption being decreased gradually. The collection and administration of the tax and rate would be fixed by the Central Government, and the yield from the agricultural incomes would then be assigned to the province where it was collected. The taxation from agriculture is estimated by the Financial Assessor, probably on prices of agricultural produce considerably in excess of the prices which obtain to-day, to produce at the end of ten years Rs. 5 crores. Other estimates have varied from Rs. 1 to 3 crores. Half of the income tax on personal incomes, but not super-tax, will be given to the province of origin. The provinces would be entitled also to levy a surcharge on personal incomes up to the extent of half the amount transferred by the Central Government. This would give the provinces an opportunity to vary direct taxation within their borders. Theoretically super-tax ought to be shared with income tax, but the Report recommends that this is not possible, as the sacrifice at present would be too great. No fault can be found with the proposal to levy surcharges on personal incomes to the amount transferred, as it gives local governments the means of taxing the rich as well as the poor and provides them with an elastic head of revenue. Provinces under the present scheme of financial relations are able to tax only the cultivator and the poor man. The Assessor to the Commission has rightly refused to transfer excise to the Central Government in view of the peculiar conditions in India. Owing to the extent of India and the variations in the methods of manufacture in the various provinces, the Central Government would find it difficult, in these days, to have a strict system of uniform control and to suppress smuggling and evasion more successfully than at present, when the excise is wholly a provincial head. Moreover, to make prohibition turn on the reduction of military expenditure, which would be the case if it were transferred to the Central Government, would not be advisable. The Central Government must have stable and certain sources of revenue which cannot be threatened with the prohibition movement. Sir Walter Layton suggests that the duty

on imported liquor should be reduced to a standard luxury duty of 30 per cent., and the provinces should be entitled to impose further excise duties if they wish. His object is to co-ordinate the liquor policy within each province. The Central Government would lose by this Rs. 1½ crores. It may be argued that there are administrative difficulties in this connection. But on the whole the suggestion may be accepted, especially as commercial stamps would be transferred to the Central Government, and this would balance the loss of duty on imported liquor, at present obtained from customs.

Additional taxation for the provinces is also to be obtained from the important Provincial Fund, which should be fed, as we have seen, from new national excises on cigarettes and matches and the duty on salt to be transferred when the budget situation permits. This is perhaps the most important proposal in the whole scheme, as it is essentially a federal idea. It is a pity that the proposal is confined to cigarettes and not to tobacco generally. In native States by a system of licences there is already taxation of tobacco, and it would have been more satisfactory if, in addition to taxes on cigarettes and matches, a licence duty on tobacco had been suggested. Tobacco could have been taxed by this system without much difficulty. A Government monopoly, and acreage fee, or a regular excise system might have been considered, but on the whole they are less satisfactory than a system of licences. A Government monopoly would be too vast an undertaking. An acreage fee is not possible owing to scattered cultivation and to the great variations in yield per acre. An acreage fee on different rates would involve considerable expenditure and would give an opportunity for oppression by the revenue officials concerned. An excise system would be suitable for manufactured tobacco in an organised industry like cigarettes, as proposed by the Financial Assessor. In India the production of tobacco is very unorganised, and on its way to the consumer country it does not pass through any agency where an excise duty could be without difficulty levied. Licences would be a productive tax. The average yield per head of this tax in French India is 3 annas, in Nawanagar 6 annas and in Travancore 8·1 annas.

Sir Walter Layton refers to the glaring anomaly in the Indian fiscal system of the absence of death duties. "On the political and legal difficulties in the way of the imposition of this tax, which arise mainly from the complexities of the Hindu law of inheritance, I am not competent to express any opinion. I am assured, however, that it would be unsafe to rely on these duties

as an important source of revenue during the next decade, especially if, as is suggested above, the exemption of agricultural incomes from income tax is removed. In most federations death duties are wholly assigned to the constituent states or provinces, but general legislation for the regulation of the tax has been found necessary in some countries in order to avoid double taxation. The tax, moreover, is clearly connected in its nature and administration with the income tax, which is collected and administered by a central authority in India. The Taxation Committee has also recommended that the legislation dealing with the tax should be undertaken by the Central Legislature. The tax if levied in India would, therefore, probably have to be administered by a central authority and distributed among the provinces." ¹ It is to be regretted that this has not formed part of his Scheme, because these are not insurmountable. In Canada and Australia such duties are about 18 and 12 per cent. of provincial tax revenues. The tax would be remunerative. The question of political difficulties being great has been perhaps over-estimated. I have dealt elsewhere with this tax as it might be applied to the joint Hindu family system.² The liability of the estate may be limited to the occasion of the death of a coparcener of the oldest generation of the joint family. Thus in a family of three brothers and their children living in a joint family, succession duty would be payable only when each of the three brothers dies, and the duty on each occasion would be on the amounts aggregating to the one-third of its total value. There is no valid reason why, when the taxation of agricultural incomes is introduced, the imposition of death duties should not also be introduced. Death duties are complementary to the taxation of income, and in view of the large expenditure on nation-building services the time has come when this question should be most seriously considered.

A terminal tax is suggested as a consumption tax leviable at every railway station. This is bound to meet with great opposition from the trading communities and those municipalities which already have terminal taxes for local purposes. The strong point of such a tax, like the recently discovered tax on sales levied in very many countries except Great Britain and the United States of America, is its productivity, and it is estimated that it will bring into the coffers of the local governments no less than 8 crores of rupees. The productivity of the tax may make

¹ *Report of the Indian Statutory Commission*, Vol. II. (Cmd. 3568), p. 241.

² For a full treatment of the subject of death duties in India see my *Science of Public Finance*, Macmillan & Co., pp. 306-14.

it necessary to sacrifice questions of inconvenience and of the existence of an additional imposition to that in vogue in municipalities.

Next as to the estimates, the Report estimates the future requirements of the provinces as "from Rs. 40-50 crores within the next ten years."¹ The estimated yield, however, comes to only about Rs. 40 crores, as we have already seen. The estimates are admittedly optimistic, as they assume that things will go on well, economically and politically, and there will be no wars, serious frontier troubles, internal disturbances, or political unrest. They assume an increase of taxation both direct and indirect, but many provinces "may hesitate to impose at all events these taxes, the rates of which are entirely within their individual control."² Customs revenue is also liable to be affected by a bad monsoon, which would reduce "the general purchasing power of the country, and therefore the receipts from customs."³ There are not a few who, like Sir Basil Blackett, late Finance Member to the Government of India, feel that the fall in expenditure and the growth in revenue of the Central Government will fall short of what is assumed. It is not possible here to examine in detail the estimates given in the Report. It is, however, essential to enter a caveat that the proposed taxation must be undertaken with the least possible delay and in keeping with the time-table which has been given in the Report.⁴

The federal idea underlying the institution of a Provincial Fund is, except in one respect, sound in every way. The voting of taxation will, as we have seen, rest with the provinces themselves through the Inter-Provincial Council and the National Assembly sitting in a special session. If the Finance Ministers of more than three provinces desire a change in taxation connected with this Fund, it will be the duty of the Finance Member of the Government of India to move in the Federal Assembly that the change be made. This would be left to the free vote of the Assembly and the Viceroy would not have the right to certify taxes for the Fund. The Finance Ministers of the provinces or a few deputed by the Inter-Provincial Council would be permitted to attend the session and take part in the debate, but not being members they would not vote. A change in the Provincial Fund would rest with the Federal Assembly alone, and changes would not be permitted in the basis of the distribution unless there is a two-thirds majority of the Assembly and also of the representatives, say two-thirds of the provinces. There will be constitutional safeguards to prevent the proceeds of the taxes being diverted to other purposes.

¹ *Op. cit.*, p. 236. ² *Op. cit.*, p. 261. ³ *Op. cit.*, p. 221. ⁴ *Op. cit.*, p. 257.

Further consideration is necessary of the proposal to distribute the national excises in the Provincial Fund on a *per capita* basis. The Commission and the Assessor perhaps attach too much importance to this form of distribution. Sir Walter Layton admits "there is no doubt that the yield would be somewhat heavier from the more prosperous provinces than they would receive back on the basis of their population. The plan would, therefore, to that extent benefit the poorer regions."¹ In the distribution of resources *per capita*, grants by themselves have proved unsatisfactory in all federations because they do not take into consideration wealth, relative taxable capacity and needs. To take one example, we may refer to page 233 of the Report, where the expenditure province by province is given under education, sanitation, land revenue and general administration, law and order, civil works and miscellaneous heads, together with the density of population per square mile. According to budget estimates, 1929-30 total expenditure per head of population is Rs. 8.3 in Bombay, Rs. 5.5 in the Punjab, Rs. 4.2 in Madras, Rs. 3.9 in Assam, Rs. 3.8 in the Central Provinces, Rs. 2.7 in the United Provinces, Rs. 2.6 in Bengal, and only Rs. 1.8 in Bihar and Orissa. The cost of education per head is as high as Rs. 1.06 in Bombay as compared with only Rs. .26 in Bihar and Orissa. The cost of sanitation per head in Bombay is Rs. .47 as compared with Rs. .15 in Bihar and Orissa. Land revenue and general administration charges are Rs. 1.5 in Bombay as compared with .3 in Bihar and Orissa. The cost of police is Rs. 1.4 as compared with Rs. .4 in the latter provinces, owing largely to higher salaries and wages that must necessarily be paid in Bombay. We find that some provinces, such as Bombay, supply more amenities of civilisation to their population than do most other provinces. Education, for example, is far more expensive per head in some provinces, such as Bombay, than in others. Moreover, where the province is large and the population scattered the costs of government tend to rise. Under a *per capita* scheme of distribution the provinces would be unfairly treated. In the United States of America the subsidies per head vary in different States. In New England the subsidy per head is half the average for the whole country, while the Western States get 85 per cent. more than this average. In Canada, Prince Edward Island gets nearly five times the *per capita* grant of Ontario, and Quebec three times the grant of British Columbia. Sir Wilfrid Laurier, in addressing the Canadian House of Commons in 1907, stated that "The experience of forty years has brought

¹ *Indian Statutory Commission Report*, Vol. II. p. 259.

this fact again and again to the attention of Parliament and the people of Canada. Not once, not twice nor thrice, but periodically and systematically, Parliament has been asked, at almost regular intervals, to vote in favour of now one province and now another province appropriations far in excess of anything that had been stipulated by the British North America Act. . . . All these have been made by Parliament without any plan, without any guiding principle, but simply as the expediency of the moment suggested, or rather as the financial difficulties of one province or the other were more or less urgent.”¹ The Report cites Canada and Australia as precedents, but in these countries *per capita* grants have proved to be unworkable. Thus even the grants fixed in 1867 by the British North America Act were not entirely on a population basis. Special grants were given to certain provinces as well as a grant fixed per head of population. But the grants were not to vary with the growth of population except in the case of New Brunswick and Nova Scotia, where the grants were to increase until the population reached 400,000. This continued up to the Amending Act, 1907, when a sliding scale was introduced, so that the lower the population the larger the grant per head.² There are, in addition, lump sum special grants given for services affecting the welfare of the country as a whole, *e.g.* education and highways. These are continued up to the present day. In Australia up to 1910, 75 per cent. of the customs collected by the Commonwealth Government in each State was returned to the States.³ In 1910 a *per capita* was introduced, but even in that year special grants were assigned to Western Australia, and in 1912 (two years after the adoption of the new basis) Parliament decided to grant special financial assistance to Tasmania. In short, the system of *per capita* payment uniform to all States was never applied.⁴ The Commonwealth Premier, the Rt. Hon. S. M. Bruce, said at a Conference of Commonwealth and State Ministers in 1927 regarding the adjustment of Commonwealth and State financial relations: “I suggest some doubts as to the equity of the *per capita* agreements in regard to the States themselves. The *per capita* system would mean ever-increasing payments to the States whose population was growing fast, possibly because of the development of secondary industries, but the payment to other States having great developmental

¹ *Report of the Royal Commission on Maritime Claims*, 1926 (Ottawa), p. 12.

² Section 118-19 of the Act for the Union of Canada, Nova Scotia and New Brunswick (30 Victoria, Cap. 3).

³ An Act to constitute the Commonwealth of Australia (1900), sections 86-87 (63 and 64 Victoria, Cap. 12).

⁴ *Australian Commonwealth Parliamentary Report*, 28 A, F 7376, 1926, p. 1.

problems to solve and vast territories to administer would not increase to the same extent, because in these States the growth of population would be slower.¹ In that year the *per capita* payments were discontinued, and in return the Commonwealth Government undertook to take over all State debts as existing on June 30, 1927, for a period of fifty-eight years, and it provided for both interest and sinking funds. For future debts a contribution towards sinking funds was to be made. This was ratified by a Commonwealth referendum in 1930. In the Union of South Africa under the Provincial Subsidies and Taxation Powers Amendment Act (1925), provision is made for the payment of subsidies not on a *per capita* basis but in respect of the average school attendance during the previous year. But here, in fixing the rate, differences in the cost of living between the coastal and inland provinces have been considered. Special subsidies are paid to Natal and the Orange Free State. In Switzerland the contributions of the Cantons to the Central Government are not on a *per capita* basis, but are fixed with due regard to the wealth and taxation resources of the various Cantons. It is unfortunate that the Financial Assessor did not take into consideration relative taxable capacity, which can be measured and which was referred to in the Meston Committee's Report. In my Memorandum prepared for the Commission, index-numbers of relative taxable capacity based on population, production, the consumption of necessaries, number of letters and post cards delivered, revenue and expenditure, agricultural and non-agricultural income, economic strength (aggregate income multiplied by average income per head), tax collections, including personal incomes assessed to income tax and super-tax, were included, and the following results were obtained for the year 1921-22 : ²

Province.	Average of Accurate Data.	Average of less Accurate Data.	Index of Relative Tax- able Capacity.
1. Bombay	100	100	100
2. Madras	77	63	73
3. Bengal	82	96	87
4. United Provinces	68	57	60
5. Punjab	47	52	48
6. Burma	59	41	54
7. Bihar and Orissa	41	49	43
8. Central Provinces	41	35	39
9. Assam	16	15	16

¹ *Commonwealth Parliamentary Papers*, F 8768, 1927, p. 10.

² Memorandum and Statistical Tables on the need for readjusting Central and Provincial Finance in India.

A province with a high taxable capacity like Bombay, which has a population of only 19 millions, would receive from the Provincial Fund, on a population basis, far less than Bengal, Madras and Bihar and Orissa, where the population is 47, 42 and 34 millions respectively, although it would contribute to the Central Provincial Fund owing to the higher standard of living of its inhabitants, perhaps a larger sum per head from national excises. Moreover, its administrative costs, as already noted, are comparatively high. Except in regard to income tax, Bombay is at a disadvantage as compared with the thickly populated and agricultural provinces. Bengal will gain owing to its large population, not merely from the Central Fund, but in regard to the taxation of agricultural incomes, terminal taxes and income tax. The Memorandum of the British Treasury has well summed up the position when it saw that if two countries are closely similar in their standard of wealth and economic conditions, "apportionment in the ratio of population is good enough."¹ Where, however, there are differences in relative wealth this would not hold good.

The inequalities proposed for the distribution of the Provincial Fund will, under Sir Walter Layton's Scheme, perpetuate the inequalities of the Financial Relations Committee (the Meston Committee), although not to so serious a degree on account of the division with the provinces of income tax on personal incomes. The *per capita* basis of distribution, with the taxation of income from agriculture, would again make the agricultural provinces such as Madras, the United Provinces and the Punjab, which gained in 1921, still further gainers. If, however, death duties and tobacco excises were levied, the more prosperous provinces would have less reason to complain. We have already touched on this.

To sum up, the main value of the Scheme of the Indian Statutory Commission, or rather of its Financial Assessor, is in its economic and constitutional aspects in regard to the provinces. Self-government in the provinces will be a delusion unless adequate revenues, especially for vital services such as education, are forthcoming. It is within the provinces that future economic progress must lie. If India is to make any real progress from a very highly centralised but efficient bureaucratic form of government to a federation of self-governing units or provinces, a Scheme on the

¹ Cf. *Report of the Committee of the Privy Council on the question of contributions to Imperial Funds from the Islands of Jersey, Guernsey and Man*, Cmd. 2586, 1926, p. 37.

lines suggested will be necessary. Many of the criticisms referred to above will be discussed at the Round Table Conference in London in November, and they certainly require discussion before the Amended Government of India Act comes before the British Parliament. The Report of Sir Walter Layton is one of the most helpful and wisest yet published regarding that most urgent question, the basis of all reform, the problem of financial relations between the Central Government and the provinces. It recalls to mind the saying of Kautilya, the earliest of Indian economists, "The beginning of every undertaking is finance."

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OFFICIAL PAPERS

Report of Delegation on the Industrial Conditions in the Iron and Steel Industries in France, Belgium, Luxemburg, Germany and Czechoslovakia. (Economic Advisory Council. Cmd. 3601. 9d.)

Report of Committee on the Cotton Industry. (Economic Advisory Council. Cmd. 3615. 6d.)

THESE Reports furnish interesting information on the argument for industrial rationalisation. The former gives brief summaries of post-war reorganisation, together with a review of labour conditions and methods of payment. The industry in France, Belgium and Luxembourg has far less organisation on the labour side than it has in Germany; in Germany the conditions are to a considerable extent the same as in Britain. In Germany, despite the rationalisation movement, the industry is suffering from unemployment, and the serious competition of France, Belgium and Luxembourg is emphasised. As the result of a visit to several representative British works, the Delegation concluded that "as regards efficiency and management, and the modernity of equipment of certain units of plant, the British works were equal to, and in some cases superior to, the iron and steel plants which had been seen on the Continent."

The latter Report finds that far-reaching improvements must be introduced, if the Lancashire industry is to arrest the decline in its trade, or recover its position. Cost of production is relatively high. There are required technical improvements,

involving considerable re-equipment, larger units in each section of the industry, and co-operative effort in production and marketing.

If this is not undertaken voluntarily, "it would be the duty of the Government to consider inviting Parliament to confer upon them any necessary powers." This appears to suggest a compulsory Cartel of amalgamated units, as in the case of the coal industry. It is of interest, in view of the findings of the Iron and Steel Delegation, that the Cotton Trade Committee concludes by suggesting that a mission should go abroad to study foreign conditions in the industry. The Association of Cotton Mill Directors and the Master Cotton Spinners' Federation have adversely criticised the Cotton Report, the former on the ground that "none of the members of the enquiry Committee was in close contact with the trade, or had the necessary practical experience to deal with the technical questions raised"; but the Directors are reported as supporting the view that amalgamations in the Spinning section can be made a success, subject to protection of vested interest in view of the position ahead, *i.e.* to a proper capitalisation of future Cartel advantage. One combine might then be made of the lot (*Times*, Aug. 6th).

These Reports should be read together, and touch on several points of the discussion reported in this issue of the ECONOMIC JOURNAL.

D. H. MACGREGOR

OBITUARY

ARTHUR TWINING HADLEY

THE announcement of the sudden death from pneumonia of Arthur Twining Hadley, President Emeritus of Yale University, on board the S.S. *Empress of Australia* in Kobe Harbour, Japan, on March 6, came as a great shock to his family and his many friends. He had left New Haven last December, apparently in excellent health, filled with lively anticipations of the pleasures of fulfilment of his lifelong desire to go round the world, to see the Great Wall of China and the Southern Cross. A slight cold contracted in Peking developed into pneumonia, and within two days he died.

So ended the earthly life, but not the living influence, of this vividly alive man. He was one of the few who truly possess the merits expressed and implied in that hackneyed phrase "an all-round man." He was an eminent scholar, a man of practical affairs, an inspiring teacher, a brilliant conversationalist, an

original thinker, a vigorous writer, a public-spirited citizen, a tactful administrator, a vivid public lecturer, a successful magazine editor, an honoured public official, a home-loving husband and father, and, withal, a beloved friend and kindly neighbour. He had a tolerance for antagonistic opinions and a magnanimity towards the intolerance and lack of magnanimity in others—a quality which is all too rare in men of genius. During our long and intimate friendship we generally agreed both on economic theory and on public policies, but we sometimes disagreed very emphatically; yet the cordiality of our relations was never strained. He was free of malice or vindictiveness even towards opponents who were intolerant, and even malicious towards him in speech and conduct. He had that rare ability to be impersonally just to the personally unjust.

His keen intellect exalted intelligence and was impatient of stupidity in others, but with all his intellectual accomplishments he was not the traditional hollow-chested, pale-checked, near-sighted scholastic weakling. On the contrary, he was a good sound athlete, with a healthy love of all sports, and possessed, in particular, of a worthy mastery of tennis.

In the mythology of Yale, President Hadley's memory is affectionately embalmed in innumerable whimsical legends which, by their very exaggeration, give a truer picture of his unique personality and the prodigious breadth and versatility of his mind than could ever be portrayed in the most exact and voluminous biography. His extraordinary classical equipment is accounted for in this mythology by the legend that he was born speaking Greek. This infant prodigy, so the legend goes, wept reproachful tears whenever his father, a renowned Greek pedagogue, made a slip in syntax. The fund of his knowledge was enormous, but its breadth and depth and length have been greatly enhanced by the beautifully improbable myths, created by the affection in which he was held by his students and associates. Weird, unbelievable tales of his deeds are solemnly recounted and earnestly believed with a fervour which is dangerous to any doubting Thomas not steeped in the true-blue Yale tradition. It is one of the accepted Yale beliefs which may not be questioned with impunity that President Hadley could hold his own on any specialty with any specialist, and often would confound the specialists by telling them something they did not know about their own subjects. Such delightful tales often cluster about unique and forceful personalities, and they are usually symbolical of truth.

President Hadley was born in New Haven, April 23, 1856. Both heredity and environment marked him for high achievement. His father, James Hadley, a noted educator, was Professor of Greek in Yale from 1851 to 1872, and his mother, Anne Twining Hadley, a brilliant woman, won distinction in mathematics. The son was reared in the atmosphere of the traditional classicism which dominated education in New England before the advent of the twentieth century. He prepared for college in the Hopkins Grammar School, and entered Yale in 1872. Throughout his preparatory school and college years he was chiefly interested in the general cultural subjects and won many prizes in Greek and Latin poetry, English composition, mathematics, and astronomy. The exceptional quality of his mind is evidenced by the wide range of subjects in which he excelled up to his graduation at the head of his class in 1876.

College men in America make much of that vague, indefinite thing called "college spirit," and to the young Hadley the "Yale spirit" was a very real thing and became an integral part of his emotional being. He had a profound sense of the poetry and beauty embodied in the best Yale traditions and associations, and he was equipped both mentally and emotionally to express the "Yale spirit" to Yale men as few have been. His very idiosyncrasies, his peculiar and unforgettable gestures, the intonations of his voice came to be endeared to Yale men and have become a part of the traditions which symbolise the college to its alumni.

He had manifested his versatility and the breadth of his outlook in college. After graduation he pushed his intellectual adventures into fresh and, to him, unfamiliar realms. He turned from the classical studies which had absorbed his energies as an undergraduate, and chose history and political science for his graduate work. He took up these subjects with enthusiasm at Yale in 1876-77, and continued these studies at the University of Berlin during the following two years. There he studied under Professor Adolph Wagner, who stimulated but never dominated his economic thinking. His ability to receive stimulation and inspiration from the ideas of others while retaining his own views testifies to his hardy individualism and power of independent thought which were part of his stout New England heritage and rigorous training.

The remarkable breadth of his knowledge is shown by the subjects he taught. From 1879 to 1883 he was tutor at Yale in successive years in Greek, Logic, German and Roman Law.

During these years he maintained his interest in political economy, and in 1883 he was appointed instructor in political science. From that time until he was drafted in 1899 by the Yale Corporation to serve as President of Yale University, he narrowed the field of his activity to his chosen specialty, political economy, with the emphasis about equally divided between the *political* side on the one hand and the *economy* side on the other.

While carrying on his teaching work he prepared and published his *Railroad Transportation*, which was the first general and comprehensive treatise on railroad history and theory published in America. This book shows a wide knowledge of the history of railroad development in Europe and the United States and a keen understanding of the problems and theories of railroad rate-making and control derived from the fervid experiences with this new and revolutionary method of locomotion in the United States and other countries. Although this book first appeared in 1885, it is still cited in every good bibliography on railroad economics. It had a powerful influence upon the thinking of students of railroad problems, not so much because Professor Hadley expressed new, original and revolutionary views, as because he expressed the views that had been evolved from the practical operation of the railroads more clearly and forcefully than they had theretofore been given.

In America, the land of specialisation, it is rare that a person reared in the atmosphere of cloistered classicism should deliberately invade the field of economics, and particularly the special subdivisions of railroad transportation and labour, where classic calm is conspicuous by its absence and clamorous controversy rules the day. In England, where the classics are still venerated as the foundation of education, it is, I understand, not so unusual to meet a Greek scholar in high public office, a mathematical director of a great business, a linguistic statistician, a logical editor of a magazine. Whatever advantages early specialisation may have, President Hadley seems to have suffered no handicap by deferring his special training in economics to his graduate years, and he, the classical scholar, was not at all out of his element when he took up the duties of Labour Commissioner of the State of Connecticut, which position he filled from 1885 to 1887, while continuing to lecture on economics in Yale University.

He no sooner laid down the burden of his official duties as head of the Connecticut Department of Labour than he took on the editing of the department of foreign railroads of the *Railroad Gazette* from 1887 to 1889 inclusive. His practical knowledge of

railroad affairs and his capacity to reason through difficult problems made him a much-sought consultant on questions of railroad policy, legislation and administration. While he was President of Yale University, President Taft appointed him chairman of the Railroad Securities Commission in 1911. The Report of this Commission, generally referred to as the "Hadley Commission," was written mostly by President Hadley. This Report was instrumental in bringing about the enactment of the Railroad Valuation Act of 1913, and in determining the provisions of that law. President Hadley's influence is also manifest in the terms of the Transportation Act of 1920. Up to his death he was a director of the Atchison, Topeka and Santa Fé Railroad and the New York, New Haven, and Hartford Railroad. He was frequently called as an expert witness in railroad cases, where his broad knowledge of conditions and his mastery of the theories of railroad rate-making and administration enabled him to speak with the voice of authority. Less than four months before his death he appeared before the New York State Commission on the Revision of the Public Service Commission Law, and gave his views with characteristic vigour on the proper basis for valuation of public utilities for purposes of fixing rates.

As railroad economics was his chosen specialty, it is in this field that he made his most outstanding contributions to economic literature and theory. He was one of the first economists to point out the fallacy in Ricardo's formula, that, under free competition, the value of different kinds of goods will tend to be proportional to their cost of production. He declared that this formula failed to conform to actuality, not because of "economic friction," as F. A. Walker, Adolph Wagner and other economists had pointed out, but because it was false in theory. "It is not true," he said, "that when the price falls below cost of production people always find it for their interest to refuse to produce at a disadvantage. It very often involves worse loss to stop producing than to produce below cost."¹

He stated more clearly than any of his predecessors that failure does not halt the losing battle, which is transformed from a battle for larger profits to one for smaller losses. Bankruptcy but makes more reckless the competition to secure more business at less than cost. Receivers, acting in the interests of the bond-holders, may supersede the directors who, by assumption, represent the shareholders; but production and selling at a loss will continue so long as anything over and above variable

¹ *Railroad Transportation*, p. 70.

running expenses can be made so that the *total* loss may be reduced.

So far as I can learn, Professor Hadley was the first to enunciate this principle, that it often pays to run at a loss—a principle which to-day is widely recognised as fundamental in economic theory. I recall distinctly how his vivid exposition of this principle brought understanding like a revelation to me and to other students in his class. Professor Hadley certainly deserves full credit for recognising clearly the true significance and far-reaching importance of this principle and for embodying it in the accepted doctrines of economics. While he first recognised this principle as applying to the railroads, he saw that it applied to all big enterprises. "The railroad may serve as a type of modern business. Wherever there are large permanent investments of capital we see the same causes at work in the same way."¹

His *Economics*, published in 1896, was his most ambitious writing in economics, and it was his last systematic work on a comprehensive scale in his chosen field. His independence and his caution are evident in this text-book, in which, as he expressed it, he departed from "the time-honoured divisions of the science into the departments of production, distribution, exchange and consumption," but at the same time he adhered to most of the general doctrines and principles which had been laid down by the classical economists. A biographer with a passion for classification might, not unfairly, label President Hadley as a liberal-conservative or a conservative-liberal in his economic and political thinking and writing. His knowledge of men and of human institutions convinced him that permanent progress is best assured by the slow organic growth of institutions and not by sudden and violent changes in the existing order. His guiding precept for economic, political and social reform was: The more haste the less speed.

His writings, while not voluminous in quantity, are impressive in quality. Under quality I include quality of literary workmanship as well as quality of the ideas expressed. The power and influence of his utterances were largely due to his genius for dressing familiar truths in new and striking verbal garb. His annual baccalaureate addresses were widely quoted and had great influence in America at least. In them he handled with the deft and sure touch of genius questions of major national or international importance.

Economists everywhere, and particularly in America, have

¹ *Railroad Transportation*, xxx, p. 72.

always felt aggrieved that Professor Hadley, an economist, young and so full of promise, was seized upon by the Yale Corporation and transformed into an administrator. They have always felt that someone less well endowed to contribute to the form and substance of economic science might have been chosen to administer the properties and direct and expand the educational policies of Yale University. After his diversion into administrative work, President Hadley, with all his energy, industry and knowledge, was unable to make any further major contributions to the literature of economics. When he laid down the presidential wand in 1921 at the age of sixty-five he had no intention to retire. He again took up active research and writing in economics, and contributed some noteworthy articles and addresses, but he had given twenty-two of the best years of his creative intellectual life to the administration of the University. To have produced a book of the first magnitude after those years of generous service, perhaps we should say of sacrifice, to his *alma mater* would have required something more than the legendary intellectual omniscience attributed to him in the Yale mythology.

The honours conferred upon President Hadley indicate that his abilities and achievements were appreciated and rewarded by his contemporaries. He was Roosevelt Professor of American History at the University of Berlin during 1907-8, a lecturer at Oxford University in 1914, and the first American lecturer on the Watson Foundation (established by a gift of Sir W. G. Watson to the Anglo-American Society) at London, Birmingham, Manchester University, Cambridge and Oxford in 1922. He gave the Dodge lectures at Yale in 1902-3, and he had also delivered the Kennedy lectures before the New York School of Philanthropy, as well as lectures at Harvard, the Massachusetts Institute of Technology, the Carnegie Institute of Pittsburgh and Stanford University. In 1924 he made an address before the World Power Conference in London. He had been a trustee of the Carnegie Foundation and of the Institute for Government Research and the Brookings Institution, and he had served as president of the American Economic Association, the American Academy of Arts and Letters, and the National Institute of Arts and Letters, as vice-president of the National Civil Service Reform League, and as honorary vice-president of the Royal Institute of Public Health.

Arthur Twining Hadley will be remembered by all who came in contact with his exploring mind as an independent personality

of high idealism. The ideals of independence and liberalism in education, in thinking and in living for which he stood are made clearer and more attainable because of his life and labours.

IRVING FISHER

CURRENT TOPICS

To the great regret of the Council, Professor Charles Gide, who has acted as Correspondent for France since the foundation of the Royal Economic Society, has expressed a wish to retire from this position on account of advancing years. Professor Charles Rist has been appointed in his place.

THE following have been admitted to membership of the Royal Economic Society : ..

Archibald, G.	Carter, H. C.	Degenfeld - Schon-
Barrie, Sir Charles C.,	Cawthorne, T. A.	berg, Prof. G.
K.B.E., D.L.	Chisholm, C.	Denney, G. H.
Bassett, R.	Choon, T. K.	Drake, J. G. O.
Batra, B. D.	Chowla, M. L.	Dumphreys, A. S. L.
Baxter, C. F.	Clark, J. B.	Dunne, T. J.
Beale, J. M.	Clifford, E. H.	Eagle, E. C.
Beasley, A.	Coates, F. G.	Earle, C. P.
Beck, J. W.	Cocking, E. L.	Eastman, C. P.
Beckett, The Hon.	Cole, C. T.	Easton, Miss J. B. L.
Rupert E.	Cole, G. F.	Edwards, A.
Bell, A.	Collard, J. F.	Empsall, E. L.
Blinkhorn, W. A. H.	Collin, T. W.	Etchells, E. S.
Blunt, A. V.	Collinge, V. H.	Evans, F.
Boak, H. E.	Cooling, C.	Evans, J. V. I.
Bray, F. S.	Cope, I. J.	Ewing, J.
Briden, L.	Corson, R. L.	Fielding, F.
Brown, E. H. P.	Costello, E. B.	Firmin, P. J.
Brown, J.	Court, W. H. B.	Fitzsimmons, R.
Brown, J. T.	Craig, W.	Flight, A. T.
Brown, W. E.	Crispin, G. H.	Flint, J. A.
Budd, G. MacD.	Crook, R. D.	Foose, F. C., Jr.
Budhdeo, V.	Cross, A. V.	Fowles, E. H.
Burnham, R. A.	Currie, J. R.	Ghose, A. Lal
Bushell, C. W.	Dadd, J.	Gibb, W. J. W.
Callison, I. P.	Daniell, P. J. W.	Gibson, J.
Carnwath, A. H.	Davis, A. J. E.	Gilbert, W. J.
Carroll, C. F.	Dawar, L. R.	Gill, L. J.

Gladden, E. N.	Lidiard, G. B.	Richmond, H. G.
Gopal, L. M.	Lilley, H. W.	Richter, Dr. B.
Green, E. T.	Lister, A. C.	Rigby, Rev. E.
Greene, Mrs. A. E.	Lokanathan, P. S.	Roberts, Prof. C.
Gupta, S. K.	Loufte, H.	Robertson, H. J.
Guthrie, Miss D.	Macaulay, J. H.	Robson, L. W.
Haggis, H. A.	MacCarthy, C. J.	Robson, R. S.
Hall, R. L.	Machin, F.	Rogerson, R., Jr.
Harding, C. M.	McHugh, J.	Ross, L.
Harris, J. A.	Maddock, J.	Rowley, Miss I.
Headland, L. T. P.	Malin, D. J.	Roy, B. B.
Heilperin, M. A.	Mares, R. H.	Rutherford, L. H.
Holmes, R. L. A.	Matheson, W. R.	Rycroft, A.
Hopkins, J. M.	Mehta, S. B.	Saha, K. B.
Hopkinson, J. M.	Menon, M. R.	Sanders, R. Y.
Houston, H.	Michael, II. L. V.	Satyanarayana, C.
Humphreys, J. F.	Millikin, B. W.	Satyanarayana, M.
Hunnisett, A. J.	Mills, A. B.	Saunders, C. T.
Ingram, H. D.	Modi, B. M.	Schierloh, P. E. E.
James, P. G.	Mostafa, M. H.	Schneider, Dr. E.
Janzen, C. C.	Munns, N. H. D.	Shepherd, J.
Jefford, P. F.	Murdeswar, D. R.	Shepherd, W. H.
Joelson, M.	Norris, A. H.	Sills, W. W.
Johnston, T., M.P.	Odam, H. E.	Singh, T. M.
Johnstone, W.	O'Donovan, J.	Sive, D. W.
Jones, E. J. C.	Osborne, F. W.	Skinner, A. P.
Jones, E. M.	Owen, L. H.	Small, J. McK.
Jones, E. W.	Peake, E. C.	Smart, A.
Jordan, W. E.	Pennett, A. W.	Smets, F. A.
Kar, S. K.	Phillips, I. W.	Smith, C. E.
Kayden, Prof. E. M.	Pinhorn, Miss E. M.	Smith, E.
Keating, Capt. J. W.	Plowden, E. N.	Smith, K. L.
Kennedy, D., Jr.	Pollock, K.	Smith, W. H.
Khan, M. N. A.	Porthouse, W., Jr.	Solomon, S. E.
Kiang, S. S.	Pratt, H. W.	Spriggs, G. W.
King-Hall, Commander S., R.N.	Pratt, J. R.	Spry, H. E.
Kinsman, J. R.	Prewett, F.	Stephens, J. W.
Kipps, J.	Pringle, E. D.	Stevenson, J.
Krishnamurti, Prof. C. A.	Quddus, K. A.	Stewart, J. C.
Lacey, H. E.	Ramage, J.	Stewart, U.
Lewis, C.	Rao, C. S. R.	Sullivan, P. H.
	Rao, C. V. H.	Sutherland, J. J. B.
	Reynolds, J.	Swain, R. H.

Takagi, Prof. S.	Veitch, Hon. W. A.	Williams, R. O.
Tasker, S. A.	Walker, J. R.	Williamson, G. E.
Thornton, C.	Waller, R. L.	Wilton, E. G.
Todd, Prof. E. S.	Warden, A. P.	Windel, D.
Tolles, N. A.	Watkins, Prof. M. W.	Winfield, F.
Torres, Prof. Manuel	Weston, T. G.	Wood, A.
de	Whiting, W. F.	Wood, J.
Tricker, C. W.	Whittam, F.	Woodruff, P. G. H.
Trott, C. E.	Whittingham, S.	Wright, H. L.
Tsui, D. C. P.	Wilenskin, C.	Wright, W. W.
Udpike, H. W.	Wilkinson, R.	Wyatt-Jones, R. A.
Van Varenbergh, L.	Williams, Evan	Wyman, V. A.
Varadarajam, M.	Williams, J. E.	Young, W. H.
Veitch, H. C.	Williams, N. H.	Yule, T. J.

The following have compounded for life membership of the Society :—

Benham, F. C. C.	Farnhill, J. A.	Pennock, M.
Bretherton, R. F.	George, P.	Sapra, Prof. B. G.
Butler-Henderson,	Greenhalgh, R. W.	Stevenson, Miss E. F.
The Hon. E. B.	Hall, Dr. J. K.	Tobata, Prof. S.
Chopra, S. R.	Holstein, Major O.	Wilks, N. A.
Coranda, F.	Lea, Tsing-Yao.	Woodhouse, W. B.
Darling, T.	MacColl, J. E.	Wright, K. M.
Drysdale, G. R.		

The following Libraries have been admitted to Library membership of the Society :—

Bibliothek des Nationalökonom, Seminars an des Handelshochschule, Warua.

Boston University Library.

Colman, J. & J., Ltd.

Committee on Economic Research, Harvard University.

Goucher College Library, Baltimore.

Linen Industry Research Association, Antrim. (Composition.)

Natal Technical College, Durban.

National Wu-Han University, China. (Composition.)

Nicholson Library, Edinburgh University.

Sowjet-Unions Bibliothek, Moscow.

Stanford University, California. (Composition.)

Rowntree & Co., Ltd. Technical Library, York.

Ernesto Tornquist & Co., Ltd., Buenos Ayres.

Universitäts-u. Stadtbibliothek, Köln.

THE following appointments have been made at the London School of Economics as from August 1930 :—Mr. A. Plant to be Sir Ernest Cassel Professor of Commerce; Mr. T. H. Marshall to be Reader in Sociology; Mr. J. W. F. Rowe to be Reader in Economics with special reference to Industrial Organisation; Mr. P. B. Whale to be Reader in Economics with special reference to Banking and Currency; Mr. F. C. Benham to be Sir Ernest Cassel Lecturer in Commerce; Mr. J. R. Hicks to be Lecturer in Economics; Mr. G. L. Schwartz to be Sir Ernest Cassel Lecturer in Commerce.

The regular students at the London School in the year 1929–30 numbered 1,116 as compared with 985 in the previous year; the inter-collegiate students 483 compared with 408; and the occasional students 1,323 compared with 1,415. Of the regular students 712 were working for first degrees of the University, 185 for higher degrees, and 210 for diploma certificates, etc. The number is also made up of 807 men and 309 women; of 660 day students and 456 evening students; of 874 students from the British Isles and 242 from overseas.

A Department of Business Administration, Research and Training is being set up, a Committee representative of important business firms having collected guarantees amounting to nearly £5,000 a year for five years. The Department is to research into problems of business administration and to give specialised training to a limited number of students sent by the firms concerned. Mr. Jules Mencken has been appointed to the staff of the Department. The Director of the School, in his Report, compares the new Department to the Harvard School of Business, which was started, however, with an endowment of \$5,000,000.

THE subject for the Alvan T. Simonds Economic Contest for 1930 is "Government Interference with the Free Play of Economic Forces." The competition is open to candidates from all quarters, for a first prize of 1,000 dollars and a second prize of 500 dollars. Further particulars can be obtained from the Economic Contest Editor, Simonds Saw & Steel Company, 470 Main Street, Fitchburg, Mass. Essays should reach him on or before December 31, 1930.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Part II. 1930. *Japanese Competition in the Cotton Trade.* B. and H. ELLINGER. *The Vaccination Problem.* M. GREENWOOD. *Wholesale Prices of Commodities in 1929.*

Part III. 1930. *The Iron and Steel Industry since the War.* M. S. BIRKETT. *International Comparisons of Real Wages.* J. H. RICHARDSON.

Economica.

JUNE, 1930. *Elasticity of Demand for Income in Terms of Work.* I. ROBBINS. *The International Bank and the Creation of Credit.* P. B. WHALE. *Economic Welfare.* F. C. BENHAM.

The Sociological Journal.

APRIL, 1930. *A New Analysis of Unemployment.* E. S. GRIFFITH.

The Economic Record.

MAY, 1930. *The Boundaries of Arable Cultivation in Victoria.* S. WADHAM. *The Development of Group Settlement in Western Australia.* G. TAYLOR. *Recent Developments in Australian Banking.* D. B. COPLAND. *The Building Industry in Victoria.* W. I. POTTER. *Comparative Costs of Living.* C. H. WICKENS. *Economic Cycles in Australia and New Zealand.* R. WILSON. *The Theory of International Trade.* E. R. WALKER. *Reports of the Tariff Board.* L. F. GIBLIN.

Indian Journal of Economics.

APRIL, 1930. *John Stuart Mill.* J. BONAF. *Economic Relations of Landlord and Tenant in the U.P.* C. M. DAS. *Immediate Effects of the Permanent Settlement in Bengal.* J. C. GHOSE. *Organised Banking among the Masses.* J. S. PONNIAH.

International Labour Review.

MAY, 1930. *Industrial Relations in the London Traffic Combine : II.* G. A. JOHNSTON and T. G. SPATES. *Performers' Rights with regard to Broadcasting and Mechanical Reproduction.* A. KOHLER. *The Campaign against Unemployment in Italy.* A. OBLATH.

JUNE, 1930. *Industrialisation and the Countries of the Pacific.* G. A. JOHNSTON. *Industrial Relations in the French State Mines of the Saar Basin.* P. WAELEBROECK. *The National Organisation of Physical Training and its Scientific Results.* R. LEDENT.

JULY, 1930. *The Act on the National Council of Corporations in Italy.* U. AILLAUD. *Industrial Relations in the Saar Basin, II.* P. WAELEBROECK. *The Provision of Work for the Unemployed in the U.S.S.R.*

Quarterly Journal of Economics.

- MAY, 1930. *Equilibrium Economics and Business-cycle Theory.* S. KUZNETS. *Joint Costs in the Chemical Industry.* T. J. KREPS. *The Inter-State Commerce Commission and the Railroad Terminal Problem.* M. L. FAIR. *The Split Inventory: a War Expedient, a Solution in Peace.* E. M. BERNSTEIN. *The Franc in War and Reconstruction.* H. E. MILLER.

The Journal of Political Economy.

- APRIL, 1930. *Monetary Business Cycle Theory in Germany.* S. KUZNETS. *Money in Circulation in the United States.* Y. S. LEONG. *Price Competition in the Printing Industry of Chicago.* E. C. BROWN. "Recent Economic Changes in the United States." C. O. HARDY.
- JUNE, 1930. *English Theories of Foreign Trade before Adam Smith.* J. VINER. *French Syndicalism of the Present.* M. R. CLARK. Moore's "Synthetic Economics." P. G. WRIGHT.

American Economic Review.

- JUNE, 1930. *Gold Inflation in U.S., 1921-29.* C. R. NOYES. *Reparation Payments in Perspective.* A. COMSTOCK. *Tariff and Organised Labour.* L. W. COOPER. *Public Expenditure in Tax Incidence Theory.* M. S. KENDRICK. *Value Changes.* C. R. WHITTLESEY.

Journal of Economic and Business History (Harvard).

- MAY, 1930. *Stages in Economic History.* N. S. B. GRAS. *The Early Days of the South Sea Company.* E. DONNAN. *A Fourteenth-century Merchant of Italy.* R. BRUN. *The English Framework-knitting Industry.* F. G. NELSON. *The Sandalwood Trade.* K. W. PORTER. *Financial Problems of the Early Pittsburgh Iron Manufacturers.* L. C. HUNTER.

Review of Economic Statistics (Harvard).

- MAY, 1930. *Income Forecasting by the Use of Statistics of Income Data (cont.).* J. F. EBERSOLE, S. S. BURR, G. M. PETERSON. *Occupational Changes in the U.S., 1850-1920.* A. S. ECKLER. *A Statistical Study of Bank Clearings, 1875-1914.* E. FRICKEY.

Annals of the American Academy of Political and Social Science.

- MAY, 1930. *The Second Industrial Revolution and its Significance.* Part I. *The New Economic Order.* Part II. *Recent Economic Changes and their Meaning.* Part III. *The Changing International Economic Order.* Part IV. *The Individual in the Second Industrial Revolution.* Part V. *The Control of our Economic Development.* Part VI. *Guiding the Developments of the Future.* The contributors are representative of economic, technical, and industrial interests.

Journal des Économistes.

- APRIL, 1930. *Le commerce extérieur des principaux pays en 1929.* R. J. PIERRE. *Les chemins de fer britanniques et l'automobilisme.* G. DE NOUVION.
- MAY, 1930. *La Finlande économique.* M. CARSON. *La rationalisation des industries en Italie.*

- JUNE, 1930. *La stabilisation de la piastre indochinoise et la baisse du métal-argent.* E. PAYEN. *L'Évolution des sources des bénéfices des banques de 1925 à 1930.* D. CAUBOUÉ. *L'Allemagne économique.* R. J. PIERRE.

Revue d'Économie Politique.

- MARCH-APRIL, 1930. *L'histoire du change en France de 1915 à 1926 et la théorie psychologique du change.* A. AFTALION. *Le problème du charbon à Genève.* P. PARENT. *Les rapports de la banque et de l'industrie.* L. BAUDIN. *L'œuvre scientifique de J. M. Clark.* E. TEILHAC. *L'évolution de la notion de défense des intérêts professionnels dans les syndicats agricoles.* F. PIERROUX.

La Musée Social.

- MAY, 1930. *La Crise de la natalité en Allemagne.* T. G. BLONDEL.

Revue de l'Institut de Sociologie.

- JANUARY, 1930. *La doctrine socialiste.* E. VANDERVELDE. *Commerce et population.* G. DE LEENER.

Scientia.

- APRIL, 1930. *Problems of Population.* J. A. LINDSAY.
MAY, 1930. *Recent American Sociology.* C. A. ELLWOOD.

Zeitschrift für Nationalökonomie.

- APRIL, 1930. Band 1, 5 Heft. *Die synthetische ökonomie von H. I. Moore.* U. RICCI. With special reference to the treatment of stable and unstable equilibrium. *Détermination et interprétation des courbes d'offre.* J. TINBERGEN. Construction of the supply curve is attempted on the basis of statistical research; in its interpretation it is argued that Cournot's formula of limited competition provides the best explanation of the data. *Tarif douanier ou monopole pour les cultivateurs de grain en Autriche.* H. GROSS. The relative effects of a tariff or a trading monopoly statistically determined. *Tariff douanier ou monopole?* V. FISCHMEISTER. A further discussion of the same problem. *Sur la notion de capital.* E. FOSSATI.

Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte.

- 23 Band, 1 Heft. *Private Financial Instruments in Medieval England.* M. M. POSTAN.

Revista Nacional de Economía.

- MAY-JUNE, 1930. *Las acciones de voto privilegiado.* J. S. OMAU. *Los mercados de valores en España.* J. S. Y ZABALZA. *La población en España.* J. R. ALMANSA.

Schmollers Jahrbuch.

- FEBRUARY, 1930. *Wirtschaftstheorie und Finanzrecht. Wirtschaftler oder Jurist?* F. HELPENSTEIN. *Ein System der Soziologie als Universalität der Sozialwissenschaften.* Zu Franz Oppenheimers Versuch. W. BLETGELS. *Zum Zusammenhang von Arbeitsweise und Ermüdung.* W. ZIMMERMAN. This article is devoted to a consideration of "Körper und Arbeit" (Atzler), which the writer

considers to be an important work. Atzler has divided the whole vocabulary of processes of working into the thirty or forty letters of a work alphabet. This enables accurate measurement of work done and energy required for it. From this we can deduce a system of rules for physiological rationalisation of work. Zimmermann criticises certain parts of theoretical assumptions. *Wirtschaftlicher Nationalismus und Internationalismus*. S. VARGA. The writer reproaches economics with not having found a solution of the free trade and protection problem. He argues that so long as the thesis that human economy is the special domain of human selfishness prevails—and it is predominant to-day—protection must be the accepted policy. *Der Dreibund als Same zu einer neuen Staatenbildung*. H. GRANFELT.

Jahrbücher für Nationalökonomie und Statistik.

APRIL, 1930. *Oekonomische Produktivität*. P. EPPSTEIN. After examining various conceptions of Productivity entertained by economic writers since the Mercantilists, Eppstein describes it as a rational utilisation of the resources in men and goods of a community, proper provision being made for the continuity of the process. Is there any test for Productivity which relates it to other known economic measures? He puts forward as test, "an aggregate of individual rentabilities," and "communal welfare." The first is rejected because the mistakes of individual entrepreneurs cause Rentability to diverge sharply from Productivity, and the second because communal welfare, if reckoned in terms of the marginal consumer, would, in these times of great unemployment, increase with every increase in unemployment benefit; and this is surely not an increase in Productivity. Real Productivity emerges as "conjunctural prosperity," that is, all the economic characteristics of a rising conjuncture. Or, it may be recognised as an optimum arrangement of its elements, i.e. capacity to produce, intensity of work, and sufficiency of saving. In neither case can Productivity be permanently guaranteed without some outside control, to make the rising conjuncture, or the optimum organisation respectively, permanent. *Volkswirtschaftliche Gedankenströmungen im Pazifik*. T. SURÁNYI-UNGER. *Der Einfluss von Preisbewegungen auf den Arbeitsmarkt*. H. FEHLINGER. *Die Arbeitsmarktgestaltung unter dem Einfluss der wirtschaftsraumlichen Dezentralisation*. E. WILLEKE. *Die Unehelichen in Oesterreich*. W. HECKE. *Statistische Uebersichten über die Wirtschaftslage einzelner Länder*.

MAY, 1930. *Erkenntnistheorie und Wirtschaftstheorie*. K. ENGLIS. *Teleologie und Kausalität in der Wirtschaftstheorie*. W. WEDDIGEN. *Kredit und Kreditorganisation*. R. STÜRCK.

JUNE, 1930. *Die Bedeutung der Strukturwandlungen für die Methode der Konjunkturforschung*. A. SOMMER. *Der Begriff der Mathematischen Erwartung in Statistik und Konjunkturforschung*. P. LORENZ.

Archiv für Sozialwissenschaft und Sozialpolitik.

OCTOBER, 1929. *Unveröffentlichte Vorträge von J. S. Mill* (by courtesy of Prof. H. J. Laski, London). *Die Kredittheorie der Cambridger Schule*. G. HABERLER. A long review of Mr. Robertson's

Banking Policy and the Price Level. Significant criticisms are its overstrain of the "static equilibrium method," which is applied unsuitably to problems of a dynamic nature, and its neglect of the influence of inflation on interest rates. The latter problem has been investigated by many German writers, but Robertson has taken quite inadequate account of their work. *Undeterminierte Lohnprobleme.* F. ZEUTHEN. In conditions of duopoly, price is usually considered indeterminable between an upper and lower limit. Zeuthen sets out to show that in the struggle between workers and employers, the actual price of labour is really decided by calculable economic factors, in addition to non-calculable bargaining skill, bluff, etc., and depends on the cost of a possible strike or lock-out, and the degree of preparedness of the parties. These factors could be objectively estimated, and the possibility of ill-considered struggles at least would be largely eliminated. Calls for fuller information to be given, and received, by intending parties to a conflict. *Der Grundsatz des angemessenen Ertrages in der staatlichen Regelung der amerikanischen Eisenbahnen.* C. J. FRIEDRICH. *Das Vordringen der Agrardemokratie in Europa.* A. DANIEL.

FEBRUARY, 1930. *Kurzfristige Auslandverschuldung—ein Problem der inneren Kapital-politik?* Prof. J. LANDMANN discusses the problem arising from the dependence of the German money market on short-term foreign supplies originating as a result of the deliberations of the Committee of Experts sitting in October 1929. He bases his data on the events of 1911 and 1929. Present position is that foreign short-term deposits amount to between 40-50 per cent. of total deposits at chief banks. Together with the fact that since 1924 less than one-third of possible domestic resources have gone to provide short-term credits, this suggests need for careful scrutiny and possibly legal pressure if future dependence on foreign sources is to be averted. An issue of bank debentures is needed. *Die Anstosswirkung der Gütervermehrung auf die Konjunktur.* A. SCHWONER. *Studentenbewegung in Japan.* H. UEBERSCHAAR. *Der Begriff des kapitalistischen Geistes und das Schelersche Gesetz vom Zusammenhang der historischen Wirkfaktoren.* E. FECHNER. This article makes a comparison between Sombart and Weber. *Statistische Studien zur wirtschaftlichen und gesellschaftlichen Struktur des zollvereinten Deutschlands.* G. HERMES. This is mainly based on the foreign trade figures for 1836-64. Two periods are distinguished—the slow rise, lasting until the 'forties, following the recovery after the Napoleonic wars. This ended in depression, which was succeeded by the second period of bounding prosperity. A closely-knit study of causes and effects. *Fragen des Pazifik.* J. B. CONDLIFFE. *Wirtschaftslage und Überseeauswanderung.* H. FÜRTH. This deals carefully with German migration before and after the war, and relates it to increasing European dependence on American food-stuffs.

APRIL, 1930. *Die Maschine in der Kapitalistischen Wirtschaftsordnung.* G. VON SCHULZE-GÄVERNITZ. *Die "Klasse" und der Klassenkampf.* W. SULZBACH. *Die sozial-ökonomischen Strukturwandlungen in Palästina.* A. BUNNE. *Das neue englische Armen-gesetz.* F. HEYER. *Die Streikbewegung in der Tschechoslowakei.* A. OBERSCHALL.

- JUNE, 1930. *Über das Wesen und die Bedeutung des wirtschaftlichen Erfolgsstrebens.* K. MANNHEIM. *Ort und Grenze des zusätzlichen Kredits.* E. LEDERER. *Die Mathematik in der wirtschaftsdynamik.* E. ALTSCHUL. *Zur Theorie des mehrfachen Monopols, insbesondere der des Duopols.* E. SCHNEIDER. *Über dem "Sinn" des Zollschatzes.* W. FELLNER. *Über den Zusammenhang der Bevölkerungsmehrung und der Intensität der Landwirtschaft in Bulgarien.* N. W. DOLINSKI.

Weltwirtschaftliches Archiv.

- JULY, 1930. *Die marktwirtschaftliche Bedeutung der Kapitalanlage in Auslande.* H. BENTE. *Der wirtschaftliche Begriff des "Ausland."* W. SULZBACH. *Weltwirtschaftliche Auswirkungen einer abnehmenden Volkszahl.* P. MOMBERT. *Das theoretische Schema der gleichmässig fortschreitenden Wirtschaft als Grundlage einer Analyse ökonomischer Entwicklungsprozesse.* H. STAEHLE. *Der internationale Goldmarkt vor und nach dem Kriege.* H. NEISSER. *Internationale Steuerverteilung und Steuerklassifikation.* B. GRIZIOTTI. *Entwicklungslinien der landwirtschaftlichen Weltproduktion.* M. SERING. *Neue Wege der italienischen Bevölkerungspolitik.* R. MICHELS. *The Marketing of Grain by Farmer-owned Associations in the U.S.* J. F. BOOTH. *Die Prägnanz der Elastizitäts-Koeffizienten.* K. SCHMIDT.

Zeitschrift für die gesamte Staatswissenschaft.

- MAY, 1930. *Handwerk, Handwerker, und Kleinunternehmer in der kapitalistischen Wirtschaft.* T. BRAUER. *Reichs-, Staats-, und Gemeindefinanzen.* T. VON PISTORIUS.
- JULY, 1930. *Die Casselsche Preistheorie.* J. NEUBAUER. Cassel's equations of price are further developed, in order to overcome the defect which is based on their alleged neglect of the subjective basis of the economic conditions. *Das Relativitätsprinzip in der Volkswirtschaftslehre.* J. S. LEWINSKI. The functional principle of Thünen is extended from land economy to industry, commerce and monetary theory. *Das Reparationsproblem.* A. VON MÜHLENFELS.

Vierteljahrshefte zur Konjunkturforschung.

- SONDERHEFT 19. *Die Energiewirtschaft der Welt in Zahlen.* W. LEISSE.

De Economist (Haarlem).

- APRIL, 1930. *Een toepassing van den goudwisselstandaard in Nederlandsch West-Indië in 1829.* I. BOS. A study in the early monetary history of Surinam (Dutch Guiana). The writer refers to two early attempts, in 1691 and 1761, to link the local currency to the currency of the mother country. The main part of the article is devoted to an account of the work of van den Bosch, to whom was due, in 1829, the foundation of the West Indian Bank. The Bank was established with a capital of three million gulden, which was to be retained in Holland, and against which a like sum of bank-notes was to be issued in the colony. Provision for convertibility was made whereby the Bank was under

obligation to exchange currency for drafts on Holland, the value of the drafts to be equivalent to the nominal value of the banknotes surrendered in exchange. The colonial paper currency was thus exchangeable into a currency circulating outside the area, at a prescribed rate. It was thus a pegged currency. *Een paar losse opmerkingen over den tuinbouw in Nederland*, II. J. J. VAN RIEMSDIJK. A continuation of the observations on the position of horticulture in Holland.

MAY, 1930. *De techniek van het vijfjaarsche plan der U.S.S.R.* J. J. BOASSON. The idea of a plan is merely the logical consequence of socialism, since socialism without a plan is merely a chaos. The object of the plan is "to overtake and surpass the leading capitalist countries in technical-economic respect" within the five years specified. The article is largely a summary of the five volumes in which the plan is officially expounded, and in particular, and in greater detail, of the two volumes of the second part which contain the views of the authors of the report on such questions as wages, employment, the financing of the scheme, etc. *Vergelijkbaarheid van handelsstatistieken*. M. RINKES. With reference to the treaty of 14th December, 1928, a discussion of certain aspects of the difficulties in the way of a comparison of trade statistics. The article relates primarily to the different methods (as between Anglo-Saxon and continental countries) in the matter of grouping exports and imports, and contains an elaborate analysis of the different types of export and import, from the point of classification. *Kantteekeningen bij den strijd over de prijsstabilisatie I*. G. M. VERRIJN STUART. A summary of, and a comment on, the recent articles in the Monthly Review of Lloyd's Bank on price stabilisation, contributed by Professor Cassel, Professor Gregory and Dr. B. M. Anderson. The present article is confined to the views of Cassel and Gregory.

JUNE, 1930. *Van "tropisch-koloniale" naar "dualistische" staatshuishoudkunde*. J. C. KIELSTRA. A discussion of the characteristic features of colonial economy in the form of a criticism of the inaugural address delivered by Professor Boeke at the University of Leyden. Boeke's view is that the fundamental difference between East and West is to be found in the unity which characterises society in the West, as contrasted with the wide gulf found in the East. Eastern society is "dualistic." This distinction is attributed to the force of Capitalism, which in Europe has acted as a unifying influence. On the contrary, in the East Capitalism has exercised a destructive influence, sweeping away local industry and trade, offering certain new products but no employment. This view is criticised by the author of this article. The formation of capital, he contends, rests on abstention from immediate enjoyment, and this betokens a desire of higher enjoyment in the future, or a fear that present enjoyment may in future be curtailed. The East has been characterised by greater contentment with existing comforts. A further point discussed with reference to the distinction between East and West is the impossibility of assigning universal validity to any pure economic theory. The economic theory with which we are familiar is derived from Western civilisation. Is it applicable to the "dualistic" East? A number of points of distinction between Western and Eastern (dualistic) economy

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are cited and considered. *Parijs als acceptcentrum*. H. J. G. MAAS GEESTERANUS. On the growth of acceptance business in Paris. *Kan groenten en fruitvernietiging productief zijn?* G. BROUWERS. Fruit-growers may be ruined by an unduly favourable crop, resulting in failure of prices. The article discusses, with diagrams, the conditions under which destruction of excessive supplies of vegetables and fruit may be advantageous. *Productiecijfers van eenige bedrijven*. P. KOEDILJK. A comparison of the state of a number of industries in 1923 (or 1921) and 1928, showing the amount produced, the total of workers employed, the power of machinery, the number of undertakings, value of produce per undertaking and per worker, etc.

Giornale degli Economisti.

FEBRUARY, 1930. *Il controllo delle banche di depositi*. N. GARRONE. Deposit banks in Italy have since 1926 been subjected to special restrictive legislation, the main provisions of which are: (1) the opening of new banks or new branches at home or abroad is subject to the sanction of the Ministry of Finance; (2) new banks must have a minimum capital, ranging according to circumstances from 5 to 50 million lire; (3) the deposits of any bank must not exceed twenty times its capital and reserve; (4) no bank may lend more than a quarter of its capital and reserve to an individual borrower; (5) 10 per cent. of the profits must be set aside annually until the reserve is two-fifths of the capital; (6) certain supervisory functions are given to the central bank. The writer, though critical of the practical efficacy of some of these provisions, is strongly in favour of State control of deposit banking in Italy. *Le odierne tendenze dell' economia politica*. PROFESSOR G. DEL VECCHIO uses certain recent works by Schumpeter, J. M. Clark and Pigou as illustrations of the current trend of economic thought. *Le leggi economiche*. G. H. BOUSQUET. In the light of the developments of modern science it is clear that economic laws have as much claim to be regarded as scientific or "natural" as have the laws of any other branch of human knowledge. *Nuove note sulla teoria dell' interesse*. DR. R. FUBINI returns to the much-discussed question of the effects of a general income tax on all income, including income derived from saving. While agreeing with the main conclusions arrived at by Professor Einaudi in his recent work, *Contributo alla ricerca dell' "ottima imposta"* (in particular, that not to exempt income from saving involves double taxation), he takes up and develops certain points in respect of which he is in disagreement with the latter, and brings them into relation with his own view of the general theory of interest. *Navi veloci e traffico transoceanico*. E. CORBINO. The present international competition in the construction of large transoceanic liners, designed to travel at exceptionally high speeds, is likely far to outrun any possible economic demand for their services and to result in a serious waste of capital and loss to shipping companies, or, more probably, to the finances of the Governments subsidising them. *Il problema filandiero nella economia serica italiana*. L. USSI.

MARCH, 1930. *Studi sulla teoria monetaria dei cicli industriali. Rapporti fra interesse e sconto*. G. U. PAPI. A summary of

theories of interest with special reference to Fisher, and a discussion of the relation between interest and discount rates, as a prelude to a study of the monetary causes of the trade cycle. *Sopra alcuni problemi di dinamica economica*. DR. H. STAEBLE disputes the criticisms urged by Professor Moretti in the *Giornale* for July 1929, against the usefulness of statistical curves of supply and demand. He suggests the following equation of demand as an initial formula, which he proceeds to develop, using the method of least squares: $x = F(y, P, I, R, a, z, v, w, \dots t)$ where x is the quantity consumed per unit of time (a year), y the price of the commodity in question, P the population, I a general index-number of prices, R an index-number of the sum-total of incomes, a Pareto's index of the distribution of incomes, while z, v, w, \dots represent the prices of competing commodities (substitutes), and t is a simple function of time used to represent the gradual change of tastes. *I depositi presso le casse di risparmio ordinarie, attraverso le vicende della lira*. L. PASSORDI.

La Riforma Sociale.

MARCH-APRIL, 1938. *La gestione della Tesoreria dello Stato dal 1922-1923 al 1927-1920*. E. ROSSI. *Quale deve essere il compito dell'agricoltore, dell'industriale, del commerciante*. J. AGUET. A plea by a member of the Fascist Istituto Nazionale Esportazione for a greater participation of the producers, both in industry and agriculture, in the merchandising of their products, coupled with some suggestions for a more stringent control over those engaged in commerce. "In Italy one most flourishing industry is practised—that of bankruptcy." There should be a register of all dealers, and after a second bankruptcy or accommodation with creditors, the name of the person in question should be struck off the register and he should be prohibited from undertaking any commercial operation in future. *La funzione del terreno nella produzione agraria*. P. BANDI.

MAY-JUNE, 1930. *Luci ed ombre dell'industrialismo moderno*. E. GIRETTI. *Dei metodi per arrivare alla stabilità monetaria e se si possa ancora parlare di crisi di stabilizzazione della lira*. PROFESSOR L. EINAUDI develops the argument that the present economic difficulties of Italy are no longer part of the consequences of the stabilisation of the lira. *L'imposta di ricchezza mobile sui salari degli operai*. S. SCOCA.

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THE ECONOMIC JOURNAL

DECEMBER, 1930

RATIONALISATION AND TECHNOLOGICAL UNEMPLOYMENT¹

S. 1. IN recent years British economic science has been enriched by the incorporation into its phraseology of two new terms of art: an incorporation which is significant on more than one ground. One German, the other American in origin, their adoption points to the international character of the social and economic problems of the age and to the directions whence we are accustoming ourselves to find inspiration; vague and uncertain as their content is, their use indicates a shift in the centre of gravity of economic discussion, for they relate to problems of production, and their use is thus a sign that that preoccupation with distributional problems, beginning with Ricardo, but especially characteristic of the last quarter century of British economic thought, has taken a new turn. Lastly, the circumstance that widespread currency has been given to those new and alien terms in connection with the public discussion of the questions to which they relate has created an unfortunate impression that the economic life of the world is being confronted by novel, vast and mysterious problems, of a kind hitherto unknown. The problems involved are indeed of the utmost importance, but when their character is analysed, it will be found that they derive their importance more from a change of scale than from the novelty of their nature.

S. 2. The phenomena to be discussed are capable, if not of exact, at least of fairly definite statement. Throughout the world a conscious process of reorganisation is taking place, involving both the structure of industry and the methods of production. To this process the name of rationalisation has been given. It is many-sided, but among the characteristic results of the rationalisation process are: a growing control over the market, a growing standardisation of process and output, and an

¹ Presidential Address before Section F of the British Association, 1930.
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increasing—in some cases, a very largely increasing—output per worker. These associated organisational and mechanical changes have, therefore, the result of economising the amount of labour *directly* required per unit of output, and—in so far as the distribution of goods over space and time is itself rationalised—of involving also a net reduction in the amount of labour required to place a unit of output *in the hands of the final consumer*. Given this trend the question arises: Will not the opportunity for finding employment in industries subject to these processes of change also undergo a change? In other words, does rationalisation inevitably bring with it unemployment due to the technological alterations involved? If an affirmative answer is given, then *part* of the existing volume of unemployment in Germany, the United States and Great Britain is not due to causes *local* to the area concerned, such as the popular explanations that unemployment is due respectively to the Gold Standard or the pressure of Reparations or the Wall Street slump, nor even to such *general* factors as the present fall in world prices, but must be directly ascribed to the technological or structural alterations which are taking place. Undoubtedly, if unemployment is resulting from technological changes, the social problem of dealing with it is greatly aggravated by the existence of other local and general causes of unemployment. But we are not entitled to assume that when the *local* causes making for unemployment have disappeared we shall then find ourselves with unemployment reduced to some pre-war “normal,” for there is no reason to suppose that in the immediate future the rationalisation process will come to an end. *If* rationalisation does cause unemployment, the post-war “normal” may be higher, perhaps considerably higher, than the pre-war one. Thus, in the final analysis, we are face to face with the curious result that one of the most popular of all remedies for unemployment may in itself be one of the causes producing the evil for which a remedy is to be found.

S. 3. The first requisite in attempting to analyse the relationships between technical improvements and the volume of unemployment is an historical standpoint. The resistance to change is a permanent element in human society: no alteration in the structure of society or in its detailed economic arrangements can be made without some interference with vested interests. All abstract reason may teach that without mechanical invention and discovery, and without improved organisation, the greater part of the world's present population would never have been born: all experience may prove that without economy of effort no increase

in the standard of life is possible—nevertheless change and improvement may be resisted, and upon grounds which deserve serious consideration. The problem, from this point of view, is one of the distribution of the gains and the sacrifices. No one will expect the farmer to rejoice at so bountiful a crop that it does not pay to cart it to market : to appreciate the significance of the law of diminishing returns is as important as to understand that the practice all round of the principle of restriction of output means lessened material welfare. Neither Robinson Crusoe nor a purely Communistic State would be distressed by the problem which we have to discuss here. Under Crusoe economics, mechanical invention and improved organisation would allow of increased consumption or increased leisure, or both, to the sole person interested ; under a purely communistic régime improved organisation and technical progress (assuming them to be possible) would increase the national dividend or diminish the national expenditure of energy, or both, without necessarily making things worse for anyone concerned, for, *ex hypothesi*, goods would be still shared in common. In the Communistic State rationalisation might result in unemployment, but it would not mean, what it may mean under a régime of private property, a *very* unequal distribution of the gains and losses from the changes taking place—though even in a Communistic State some difference would in practice have to be made between the employed and the unemployed in order to diminish the attractiveness of leisure to the unemployed.

S. 4. The progress of technique has been the characteristic feature of the Western World since the eighteenth century, but it was in the early years of the Machine Age that the problems arising out of the contemporary developments were most fully discussed by economists. For this reason the discussion of the problem of Rationalisation by the Classical Economists has a direct significance for the present age : the problem of the " Influence of Machinery upon the Condition of the Labouring Classes " which was debated by Ricardo and McCulloch, Chalmers and Babbage and Senior is in all essential respects the problem which vexes us to-day. Whatever may have been the attitude of the popularisers of economic thought, the original thinkers of the time were by no means so intoxicated with the progress of technique that they failed to see that it had its drawbacks. Ricardo, in his celebrated recantation in the chapter on Machinery in the third edition of the *Principles*, finally arrived at the conclusion that the " substitution of machinery for human labour

is often very injurious to the interests of the class of labourers . . . the same cause which may increase the net revenue of the country may at the same time render the population redundant, and deteriorate the condition of the labourer,"¹ and, in summing up his thought, argued roundly that "the opinion entertained by the labouring class, that the employment of machinery is frequently detrimental to their interests, is not founded on prejudice and error, but is conformable to the correct principles of political economy."² But this view, though it can be defended on adequate grounds, was based by Ricardo on reasoning which must be regarded as untenable. Charles Babbage, the most fervent contemporary apostle of the application of scientific method to economic life, discusses the whole issue very admirably in his work *On the Economy of Manufactures*. Whilst reduced prices, consequential upon the use of machinery, have a tendency to reabsorb the labour inevitably displaced, yet in order to prove "that the total quantity of labour is not diminished by the introduction of machines, we must have recourse to some other principle of our nature."³ This principle turns out to be the influence of the increased *power* to enjoy upon the *desire* to enjoy: "He who has habitually worked ten hours a day will employ the half-hour saved by the new machine in gratifying some other want; and as each new machine adds to these gratifications, new luxuries will open to his view, which continued enjoyment will as surely render necessary to his happiness." But this optimistic psychology of wants does not prevent Babbage from stressing, (a) the effects of new machinery in *redistributing* the demand for labour, so that "considerable suffering among the working classes" results, (b) the increased competition which rationalisation sometimes induces among the workers, for "even though the increased demand for the article, produced by its diminished price, should speedily give occupation to all who were before employed, yet the very diminution of the skill required would open a wider field of competition amongst the working classes themselves," (c) the

¹ *Principles*. McCulloch's edn., p. 236.

² *Op. cit.*, p. 239, cf. this with the utterances of a more modern pessimist: Capitalistic rationalisation, in the absence of constantly expanding foreign markets is "driven back upon the home market: and there it defeats itself and creates around it a desolation of unemployment and human decay." Labour "deprived of its independent source of income (cf. Ricardo's 'Gross Revenue') ceases to be effective in the market as a buyer, and thus defeats the aim of the reduction in costs which has been achieved." G. D. H. Cole. *The Next Ten Years*, p. 109.

³ This and the following citations, are taken from the fourth edition of the *Economy of Manufactures*, 1835, paras. 404-407.

difficulty in deciding whether, when improvements were made, the process of displacement should be gradual or immediate : " the suffering which arises from a quick transition is undoubtedly more intense ; but it is also much less permanent than that which results from the slower process ; and if the competition is perceived to be perfectly hopeless, the workman will at once set himself to learn a new department of his art." In the end Babbage was driven to adopt a very doubting tone : " That machines do not, even at their first introduction, *invariably* throw human labour out of employment, must be admitted ; and it has been maintained, by persons very competent to form an opinion on the subject, that they never produce that effect. The solution of this question depends on facts, which unfortunately have not yet been collected," and he makes a powerful plea for further statistical information, which after the lapse of a century one is still forced to echo.

Neither Chalmers, who believed in the doctrine of the Wage Fund, nor Senior, who did not, denied that the effect of machinery might be to increase unemployment. " It is not the true vindication," argues the former, " that the making of the machines opens so great a source of employment, that the making and working of them together take up as many hands as did the making of the commodities without the machines ; for, in this case, there would be no abridgment of labour, and no advantage to master-manufacturers in setting up the machinery. And it is not a sufficient vindication, that, when an article is cheapened by machinery, the demand for it is so much enlarged, as still, in spite of the abridgment in labour, to require as many, if not more, labourers for its preparation as before : for this, though true of many, perhaps most trades, is not true of all."¹ The true defence is that " the fund, out of which wages come, is left unimpaired." Senior's general position cannot be shortly described, but he does at least admit that when the demand is inelastic, employment declines, though this is to him the exception. Citing the case of a screw which " in the manufacture of corkscrews, performed the work of fifty-nine men," he argued that this example " is as unfavourable to the effects of machinery as can be proposed ; for the use of the commodity is supposed to be unable to keep up with the increased price of production, and the whole number of labourers employed on it is, consequently, diminished. This, however, is a very rare occurrence. The usual effect of an increase in the facility of providing a commodity is so to increase

¹ *Pol. Economy, Appendix Note B on Machinery*, p. 56.

its consumption as to occasion the employment of more, not less, labour than before." ¹

The classical school had thus, by the middle of the last century, resolved the problem into its constituent parts. Under what conditions will rationalisation involve unemployment in (a) a single industry (b) in all industries taken together? Or, is there some inherent "principle of human nature" upon which reliance can be placed to solve the problem, after transitional effects have been overcome? Those were, and remain, the fundamental issues which have to be faced.

S. 5. Available figures do reveal impressive improvements in production in recent years, and gain added significance when placed in juxtaposition with figures relating to employment. An increase in *per capita* and aggregate output in a single industry accompanied by a decline in the number of workers engaged does not, of course, necessarily imply the existence of any unemployment at all, since an industry normally loses a certain percentage of its workers every year, and if the rate at which new entries take place is adjusted to the new technical conditions, the consequences of technical improvements can only be judged of indirectly. An increase of aggregate and *per capita* production over industry generally accompanied by growing or stable unemployment does, however, suggest that the rate of improvement is for the time being so great that over the range of industry covered the chances of employment are diminishing; though unless the unemployment returns cover the whole, or a very significant part of the employable population, it may still be the case that, *indirectly*, the effects of rationalisation are being offset, in whole or in part, by an increase in the volume of employment in the occupations not recorded in the returns. And since production figures are biased by the choice of base years, the incidence of the trade cycle, changes in the demand for particular commodities and the like factors, even the co-existence of increasing aggregate and *per capita* output with increasing or stable unemployment, is not by any means a completely valid test of the relationship between the elements in the problem.

The best-advertised figures are undoubtedly those relating to the United States.² Put into their simplest form, the Census of Production figures show that between 1919 and 1927 (the last a year of comparative depression of trade), the number of workers

¹ *Pol. Economy in Ency. Metropolitana*, 1850, p. 166.

² Some of the material cited below has already been made use of by me in an article: "Is America Prosperous?" *Economica*, No. 28, pp. 7-8.

in the four main divisions of American industry : viz., agriculture, mining, transport and manufacturing, declined by 7 per cent., quantitative output increased by 20 per cent., and output per worker by 30 per cent. approximately. The figures adduced by Mr. Woodlief Thomas carry the same implications with them : they relate to a comparison of the years 1918-20 as base with 1924-6.¹

Index at beginning of period = 100.

	Workers.	Output.	Output per Worker.
Agriculture, 1924-6	95	112½	118
Mining „	100	127	127
Manufactures „	91½	128½	140½
Railways „	91½	100	109
Average „	93	120	129

Accurate unemployment figures for the U.S.A. do not exist : estimates exist for 1928 which vary from 1·9 millions to 2·6 millions : one estimate for 1927 was 4 millions, whilst another authority gives an estimate which varies from 4½ millions in 1921 to a minimum of 2 millions in 1927.²

A census of production does not exist in Germany. The revised index of production recently published by the Institut für Konjunkturforschung (Base 1928 = 100 ; comprising 31 weighted industrial groups) shows that production rose from a figure of 69·5 for 1924 to 101 in 1929. In the year of rationalisation, 1925, the index rose to 83·3, fell in the slump of 1926 to 79 and reached 100 in 1927. Whilst the maximum number of applications per 100 places available reached a peak at the beginning of 1926 (in the period 1924-9), and the employment situation is marked by great seasonal variations, nevertheless a competent German authority points out that in 1929 “ the rise in unemployment, as compared with the previous year, practically corresponded to the increase in the number of available workers caused by the age distribution of the population. In 1929 it was thus no longer possible for industry to absorb this increment.”³ Some interesting figures are cited by the same authority, illustrative of the growth of efficiency in particular industries. In the Ruhr Coal

¹ Woodlief Thomas—“ The Economic Significance of the Increased Efficiency of American Industry ” in *American Economic Review, Supplement*, 1928.

² *Recent Economic Changes in the U.S.*, 2 vols., 1929, v. Vol. II, pp. 469-78.

³ *Germany's Economic Development during the Second Half of the Year 1929*, published by the *Reichs-Kredit-Gesellschaft*, 1930.

industry, for instance, the total number of employees declined by 10 per cent. between 1913 and 1928, whilst the output per employee rose by 26 per cent. In 1929, production per employee rose another 9 per cent. up to June, whilst employment fell another 2 per cent., though the monthly figures are clearly affected by seasonal changes. In another industry directly competitive with British industry the facts are even more striking: "The index of labour efficiency in the German machine industry, using the first quarter of 1925 as a basis, averaged 142 per cent. for 1929, as compared with 133 per cent. for 1928, 142 per cent. for 1927 and 126 per cent. for 1926."¹

Even in the case of Great Britain, which is generally regarded as having lagged somewhat behind in the Rationalisation movement, more than one piece of evidence is available which suggests an increasing productivity as one of the immediate causes of unemployment. Quite apart from the recent speeches of industrial leaders at Company meetings representing such diverse products as cement, transport and rubber tyres, the production index of the London and Cambridge Economic Service when placed in juxtaposition with the employment figures reveals a far more rapid growth in the former than in the latter. Thus between 1924 and 1929 the Combined Index of Production rose from 100 to 116.2: the employed population over the same period increased from some 9,500,000 to 10,020,000 persons, or some 7 per cent., whilst unemployment was greater by nearly 4 per cent. No doubt the position in Great Britain is extraordinarily difficult to weigh, since world factors of any sort unfavourable to trade and industry are likely to affect this country to a greater degree than more sheltered areas. Nevertheless, the figures do suggest a growing divergence between the movement of production and the movement of employment.

S. 6. Whilst the foregoing analysis may be sufficient to establish a presumption that in recent years the process of rationalisation has been responsible for the creation of part of the existing volume of unemployment, in the end one is forced back upon general economic reasoning. Three general sets of circumstances have to be examined: the motive of rationalisation, the circumstances under which rationalisation takes place, and the methods of rationalisation actually adopted.

(1) The first point is simple. The motive of rationalisation is in all cases to reduce costs from the standpoint of the capitalistic producer: it is not the reduction of "real" cost or "social"

¹ *Germany's Economic Development, etc.*, p. 14.

cost. It may very well be the case that a process which reduces pecuniary costs from the capitalistic point of view also reduces "real" cost: a new technique may involve less actual psychic strain to the worker employed. On the other hand, standardisation may involve elements of social loss: a lowering of the standard of skill or reduction of the creative and æsthetic element in work. It follows from this that whenever wage costs per unit of output form a substantial element in the price of the product per unit before rationalisation, it will pay the producer to reduce that cost, if necessary, by the displacement of labour by mechanical instruments. It does *not* follow that unemployment *must* ensue, since we have still to take account of demand for the product, and of the indirect effects of the economies introduced. But unemployment *may* follow. And from this point of view it is important not to overlook the circumstance that the attractiveness of reducing wage costs per unit of output is not an absolute magnitude: it is a function of the wage cost itself and of the economies to be realised by alternative processes. Now it is at least significant that at the present time the rigidity of wage rates is a striking element of the economic situation in this country: all other prices are falling, but the price of labour is not. The same is true of Germany—at least as regards unskilled labour. In 1929 "weekly wages on standard time schedules" of unskilled labour were between 75 per cent. and 80 per cent. above 1913; the cost of living was only about 55 per cent. above the pre-war level. In the United States, the check to immigration has given labour something like a quasi-monopoly. Under these circumstances, to economise labour as much as possible represents merely ordinary business prudence.

(2) The effect of rationalisation upon the chances of employment obviously differs when the striving after economy is the result of a period of intense demand for goods and services of all kinds, or when the striving after economy represents an attempt to meet the exigencies of falling prices or an unfavourable economic situation generally. The war period represents the first alternative, the present moment the second. During the War, rationalisation was forced on because there was an insatiable demand for goods, at a time when a large proportion of the able-bodied workers of the country were absorbed by the Army. At the present moment, when industry is suffering from a contraction of the market and when, on other grounds, there is already a surplus of labour available, the position is obviously different. Again we are not entitled to assume that unemployment *must*

ensue, for we must again deal with the demand side before we arrive at a final conclusion, but in general it is at least clear that unemployment is *more likely* to ensue from rationalisation than was the case during the War.

(3) Lastly, as regards the *methods* of rationalisation. Here, of course, the task of analysis is complicated by the fact that a large variety of rationalisation methods can be distinguished, the effects of which on the employment situation (even without taking demand conditions into account) may be very different.

(a) So far as so-called "Financial Rationalisation" is concerned: that is, the writing down of book values and the consequential cleaning up of the balance-sheet position, there is obviously no direct connection with the problem of employment at all.

(b) But financial rationalisation when it means—as it increasingly does—a greater degree of integration of enterprises, does affect the employment situation directly.

When integration involves concentration of particular types of output at different works, then, in so far as different degrees and kinds of skill are involved, a problem of mobility at once arises, for grades and types of labour formerly required at more than one point are now required, perhaps, at only one point. The greater the difficulty of getting labour to move, the greater the chances that the further consequences of concentration—improved processes, eliminating the kind of labour which is difficult to obtain by substitution of another kind, or the replacement of labour by machinery—may throw a particular kind of labourer out of work altogether. At the very best one is then left with the problem of reabsorption in another direction.

(c) Standardisation of types, whether occurring as a result of concentration of output at certain points within an integrated group forming part of a wider industry, or whether occurring as a result of deliberate agreement by all the producers within an industry, has also a direct bearing on the labour situation, in so far as repetition work in and of itself encourages the further use of machinery and the substitution of skilled by unskilled labour.

(d) Lastly, we are left with certain rationalisation methods which have as their object not the direct cheapening of the product, but control over the market, through common sales-organisations of one kind or another. Their effect on the employment situation obviously turns on the price and sales policy adopted: and they thus involve the question of demand, to which we must now turn.

In considering the relations between rationalisation, the market and unemployment, there is one obvious point which tends to be lost sight of in popular discussion. The degree of rationalisation which "pays" is not an absolute magnitude, but depends on the "shape of the demand curve." Thus a complication is introduced through the circumstance that the point of optimum economy in production may involve a volume of output which, *if it is to be sold*, reduces the aggregate return below the maximum attainable if a smaller volume had been produced and marketed. In such a case—which cannot always be foreseen in advance—and given the absence of effective competition, the economies in labour cost may be eaten up by a rise in the overhead cost, and if there has been a reduction in the volume of labour directly employed, there are not necessarily any resources available by which that labour can be indirectly absorbed. The consumer pays the price which brings the maximum aggregate return. Unless this price is lower than the price previously ruling, he cannot increase his expenditure in other directions. The price need not be lower, because, though *prime* cost may be lower, *supplementary* cost, for the volume actually sold, may be so much higher as to lead to no general lowering of cost at all. In other words, rationalisation undertaken on technological grounds without taking into account demand conditions may not increase the aggregate national dividend, and so may create an unemployment problem which it cannot solve. And we have no right to assume that the race of rationalisers never makes a mistake.

Returning now to the general problem, we necessarily employ concepts which are familiar to all students of economics.

(a) If the demand for an article has an elasticity greater than unity, a reduction in its price results in a more than proportionate increase in the quantity demanded. Thus, even in a rationalised industry, in which labour cost has been reduced, the greater the elasticity, the greater the derived demand for labour, and the greater, therefore, the opportunity for reabsorbing labour and of adding to the total quantity of labour employed. But *how much* labour will be needed, depends not only on the state of demand, but on the technical conditions in that industry.

(b) Even if the derived demand for labour *in this industry* has an elasticity of less than unity, yet provided that the demand for the product of the industry has an elasticity greater than unity, the *indirect* derived demand for labour may have an elasticity greater than unity. For the machinery and other equipment used by the industry has itself to be created by means of labour,

and, if the output of the industry is expanding, it requires an expanding plant. Thus the increased demand for labour in equipment industries, which marks the first stages of a rationalisation movement calling for large quantities of new equipment, may continue *after* the first stages have been passed. But too much must not be based upon this. For if rationalisation is a continuous process, it will affect not only the industries supplying consumers' goods in the narrower sense, but also the industries subserving these industries.

Optimistic interpretations of the rationalisation process will generally be found to be based upon the assumption that what is true in some cases is necessarily true in all. The demand for certain popular luxuries is no doubt highly elastic, but it is equally clear that the demand for agricultural products, for example, is not. There is no reason whatever to suppose, therefore, that an all-round cheapening of products already available will necessarily absorb *all* the labour unemployed in consequence of technical changes, though no doubt that will be the case to some extent. But to what extent is unfortunately unknown.

S. 7. Nevertheless, is it not legitimate to argue with Babbage in the passage already cited that "as each new machine adds to these gratifications, new luxuries will open to his view"? or with Professor Robbins,¹ that the elasticity of demand for labour in general is greater than unity? Since rationalisation reduces the quantity of labour required for the production of the existing quantum of material welfare, in other words, will it not be possible to add to that volume of material welfare? Or must we argue with Mr. G. D. H. Cole that rationalisation "might succeed in lowering substantially the cost of producing each unit of the national output: but it would only find itself unable to make use of the great new productive power of which it had become the master. For the problem of production cannot be solved unless the problem of distribution is solved with it; and the lowering of the unit cost of production, unaccompanied by a pouring of fresh purchasing power into the pockets of the consumers, will only mean a more determined policy of restricting output and a widening circle of unemployment"? ²

But, *in the absence of falling prices due to monetary causes taking place coincidentally* (which, as we have already had occasion to point out, intensifies the employment problem), *rationalisation*

¹ "Economic Effects of Hours of Labour," by Prof. L. Robbins (*Economic Journal*, March 1929, p. 25).

² *The Next Ten Years*, etc., p. 116.

involves an increase of the monetary purchasing power in the hands of the consumer. So long as money incomes in general remain the same, the margin between money incomes and expenditure goes up, in those cases in which the elasticity of demand for products of the rationalised industries is less than unity; or the cheapening of the articles results in a larger aggregate consumption of them, or, if the articles in question are subject to quasi-monopolistic conditions, the same amount is spent on them as before, but profits in the industries producing them increase, and larger profits mean additional purchasing power in the hands of entrepreneurs. The problem as stated by Mr. G. D. H. Cole is not the real problem at all; the real problem is: what use will "consumers" make of the margin of purchasing power now available as a consequence of rationalisation?

If the answer to this question is that consumers will devote it to the satisfaction of new wants, then it will be true that in the long run rationalisation will not involve unemployment. But the run may be a very long one, not only because a transfer problem is involved, but because the newer industries themselves will not in all probability require as much labour as they might have, had not the whole atmosphere of industry been impregnated with the rationalisation spirit. From this point of view, an increase in the demand for those personal services which are least affected by the progress of mechanical improvement will help to solve the problem more easily than a demand for goods the production of which requires the direct application of labour to a smaller extent. The growth of the "service industries" in the United States has been expressly adverted to by the very able group of American economists who last year published their *Survey of the developments of the last decade in the United States*.¹

But consumers *need* not devote their available resources to the satisfaction of new wants. They may decide to "hoard" their savings in the technical sense described by Mr. D. H. Robertson in his *Banking Policy and the Price Level*; or, in other words, they may desire to keep more of their resources in a liquid form. If this hoarding takes place on a large scale a cumulative pressure is exerted on the price level, and the difficulty of absorbing labour is *ipso facto* increased. In the ceaseless combat waged in the human mind between the desire for greater gratification on the one hand and the desire for greater security in the shape of holding free resources on the other, it is not at all times true that it is the former passion which gains the upper hand. At the present

¹ *Recent Economic Changes*, Vol. I, p. xvi.

moment it would appear as if the desire to abstain from additional consumption were more important than the critics of current standards of consumption would be prepared to admit.

However that may be, the problem of transfer that is in any case involved is one of sufficient difficulty. Contrary to general opinion, even in countries like the United States, with a high degree of labour mobility, transfer may involve not only considerable loss to the individual, but also considerable delay in point of time, as appears from an interesting piece of evidence presented by the Brookings Institute of Economics to the U.S. Senate Committee on Education and Labour in the course of their investigation of Unemployment in the United States in 1928-9.¹

S. 8. We have now arrived at the point at which it is necessary to apply the foregoing analysis in a more directly practical manner.

(1) Since the rationalisation movement is international in

¹ *Summary of Testimony and Report of Institute of Economics of the Brookings Institution*, by Isidor Lubin, documented, pp. 500-1 :—

"An investigation recently made by the Institute of Economics of the Brookings Institution reveals that most of the displaced workers have great difficulty in finding new lines of employment once they are discharged. A survey of some 800 workers in three industrial centres revealed that the newer industries are not absorbing the jobless as fast as is usually believed.

"Almost one-half of the workers who were known to have been discharged by certain firms because of curtailment in employment during the year preceding were still without jobs when interviewed by Institute of Economics investigators. Of those still unemployed over 8 per cent. had been out of work for a year, and about one-half had been idle for more than three months. Among those who had succeeded in finding work, some had had to search for jobs for over a year before finally being placed. More than one-half of those who had found jobs had been in enforced idleness for more than three months before finding employment. Only 10 per cent. had been successful in finding new jobs within a month after discharge.

"The new jobs, moreover, were usually secured at a sacrifice in earnings. Some workers, to be sure, were fortunate enough to find employment which paid higher wages, as was made evident by the fact that about one-fifth of them were making more money on their new jobs than before discharge. Forty-eight per cent., however, were receiving lower wages and about one-third were earning just about the same amount as they formerly did.

"And what kind of jobs did these men finally secure? Trained clothing cutters with years of experience had become gasoline station attendants, watchmen in warehouses, timekeepers in steel plants, and clerks in meat markets. Rotary press operators were pressing clothes in tailor shops. Machinists were selling hosiery for mail-order houses. Welding machine operators were mixing salves for patent medicine manufacturers. A significant number of men admitted frankly that after some months of enforced loafing they had taken to bootlegging.

"It is evident that a large number of the workers now being displaced from industry are being forced into unskilled trades at a sacrifice in earnings and a consequent lowering of their standards of living. At the same time they are being made to bear the burden of unemployment, for which they are in no way responsible and over which they have no control."

character, and, since it undoubtedly results in most cases in a reduction of cost per unit of output, no single country engaged in international trade under competitive conditions can hope to contract out of its consequences, good and bad, except at the expense of its international trade. This is in itself a sufficient reason for pushing ahead with rationalisation in this country.

(2) In the short run, rationalisation is not a remedy for unemployment, but, on the contrary, is itself a factor in making for unemployment, except to the extent that it stimulates demand in the structural and equipment industries. But since a loss of markets due to progressive reductions in prices by rationalised industries in other countries also adds to the volume of unemployment in this country, the short run evil of unemployment in this country changes in character, rather than grows in volume. Industries are in part depressed because local costs of production are too high and unemployment ensues. Rationalisation reduces costs, but until the lower costs have helped the industries in question to regain their market, *and expand it*, unemployment will remain. But unemployment resulting from rationalisation is a lesser evil than unemployment resulting from relative inefficiency.

(3) In the long run, since rationalisation effects a lowering of real costs, then, given a desire for a rising standard of life, there is no reason to suppose that the volume of unemployment will not again fall. But, in the absence of any definite knowledge of the elasticities of demand for different products, we cannot foretell in what directions an increased demand for labour will manifest itself. Both American and British experience would seem to show that the demand for labour in the existing body of industries is likely to shrink, absolutely in relation to the population, relatively in relation to the output; whilst every increase in the technical knowledge available to industry will make the demand for labour in relation to output smaller in the new industries, the rise of which we have every reason to suppose (to judge from past experience) will accompany reductions in real costs in the existing industries. Thus the occupied population in the future is likely to be less "industrialised" than in the immediate past; and the growth of trades and occupations outside the narrow concept of "industry" will continue as rationalisation proceeds.

(4) The most optimistic view of the situation must take into account the fact that a grave transfer problem is involved, and that monetary and other circumstances having nothing directly to do with the rationalisation problem may accentuate the difficulties of transition. The first and most obvious step in the

direction of ameliorative measures must therefore be an increase in the mobility of the working population.

(5) In estimating the probable duration of unemployment resulting from rationalisation, account has to be taken, not only of the state of technical knowledge, but of the movement of the population. Since rationalisation produces its most striking results when the aggregate demand for a product continually increases, a stationary population (and the most advanced nations are tending to stationariness of population) places a limit to the expansion of output in each of the several directions in which the economies of large scale production are most strikingly displayed. At the same time, the decline in the number of new entrants into industry, which is to be expected over the next few years, will diminish the immediate pressure. But it is quite possible that the normal level of unemployment will be higher in the future than in the past, in which case unemployment will cease to serve as an index of material well-being. The paradox of a rising standard of life with a higher level of unemployment may well be the result of the present tendency in industry.

(6) On the other hand, there are not wanting examples to show that demands for new products and services can be stimulated very quickly, provided they are sufficiently cheap; and there is therefore no reason to fear that we shall all "starve in the midst of plenty." What has been true of the motor-cycle, the motor-car, the gramophone, the radio, artificial silk, the cinema, the popular press, books, travel facilities, greyhound racing and the rest will surely also be true of the future. No doubt we shall have to give up the belief that "national power" is to be measured by a high percentage of occupied persons in a few "staple industries"; but just as we no longer think of measuring our "national power" in terms of agricultural output, so we shall gradually see that those countries which have the highest standards of life *ought* to be those employing the largest proportion of their populations in the supply of "luxuries." All that stands in the way are economic and ethical standards no longer appropriate to the tendencies at work.

(7) There is an obvious relationship between the progress of rationalisation on the one hand, and the possibilities of a shorter working day and higher earnings from labour on the other. The rise in the standard of living and the shorter working hours which have characterised the progress of industry in the last hundred years were both conditioned by increased productivity; though it may be true that unless Labour's demands had been made the

spur to further invention and discovery might have been in part lacking. But at any given moment a balance must be struck between the demand for higher earnings and the demand for more leisure, for, if both demands are pushed to such an extreme that, if either were granted, the whole benefit of increased productive power would be exhausted, then the grant of the one excludes the grant of the other; and if *both* were, under these conditions, *simultaneously* asked for and granted, a new disequilibrium of costs and prices would be set up, which would inevitably cause a new wave of unemployment until further advances in technique and organisation had been achieved.

A shorter working day and higher wage rates are, of course, frequently defended, not on the legitimate ground that society can afford them with increasing productive powers, but on the ground that they are *direct* means for reducing unemployment, because they "spread work" and stabilise "working-class purchasing power." Unless accompanied by increasing productivity, however, they are incapable of achieving these results; for a shorter working day without a larger output would either involve lower wages or rising costs per unit; and rising money wages without increasing productivity would also result in disequilibrium. But given increasing productive powers, it is possible to lower prices to the consumer and pay the same wages as before for a shorter day or, with the same lower cost to the consumer, pay a higher wage for the same working day. Growing productivity, in fact, gives society a margin to "play with," and this margin is the source out of which unemployment can be relieved. But we have no right to assume that the process works without friction or that the fears of the workers are based entirely on "prejudice and error." In the end, one must rest one's hopes on the known elasticity and responsiveness of capitalistic society; an organisation which was capable of surviving the shocks of the war and post-war period is hardly likely to perish because it is learning to turn the arts of production to still better use in the future than it did during the last one hundred and fifty years.

T. E. GREGORY

MACHINERY REPLACEMENT IN THE COTTON TRADE

WHEN a trade is subject internally and externally to examination in the light of post-war ideas of rationalisation and reconstruction, one of the questions most frequently asked seeks to discover whether the plant and machinery of that trade are up to date.

It is not simple to decide immediately what should be meant by this, and it may well be that many popular ideas upon the subject are far from true.

This memorandum is an attempt to discover the position of the Cotton Spinning and Weaving Mills of Lancashire in respect of their equipment.

There are two main causes presumably for the steady replacement of machinery, namely—

- (1) Wear and Tear, and
- (2) Obsolescence by the discovery of new processes.

Replacement for both of these causes might be expected to be accelerated in prosperous times, and retarded during slumps in trade.

I shall also endeavour to investigate the significance of this factor to both of the main causes of replacement.

1. WEAR AND TEAR

Accurate data of an exact type is almost entirely lacking, and it will be in the main necessary to depend upon certain tendencies and examine their agreement or otherwise.

I will consider in the first place the normal life of the Spinning Machinery.

Exact statistics do not exist in this country, but a useful examination has recently been published by the Association of Cotton Textile Merchants of New York, who have available figures from the Bureau of the Census which have the advantage of being comprehensive and authentic.

The total combined spindleage of Cotton Mills in the U.S.A. reached its peak in December 1924, when 37,939,772 Spindles were in position.

The decline from that point is as follows :

Dec. 1925	.	.	37,871,936	a decline of	67,836 Spindles
„ 1926	.	.	37,364,730	„	507,206 „
„ 1927	.	.	36,465,976	„	898,754 „
„ 1928	.	.	35,267,086	„	1,198,890 „
„ 1929	.	.	34,585,304	„	681,782 „
Apr. 1930	.	.	34,195,464	„	389,840 „

Total 3,744,308

After 1925 the rate at which Spindles are being reduced is :

1926	.	.	.	.	1.4 per cent.
1927	.	.	.	.	2.5 „ „
1928	.	.	.	.	3.4 „ „
1929	.	.	.	.	2.0 „ „
1930	.	.	.	.	3.45 „ „

Actually, dismantling is proceeding at a more rapid rate, for the figures include those new Spindles built each year.

The figures which are given in the Association's record were supplied by American Manufacturers of Textile Machinery, and show the following new equipment :

1925	.	.	.	.	343,292 Spindles
1926	.	.	.	.	217,264 „
1927	.	.	.	.	496,192 „
1928	.	.	.	.	255,192 „
1929	.	.	.	.	320,784 „

Combining the two figures we get a total of

1926	.	.	.	.	724,470 Spindles
1927	.	.	.	.	1,394,946 „
1928	.	.	.	.	1,454,802 „
1929	.	.	.	.	1,002,566 „

Total . . . 4,576,784 „

An average of 1,144,196 Spindles.

Dividing this into the average number of Spindles gives the average life of an American Spindle to be 31 years.

This supposition would not be strictly true unless the number of spindles 30 years ago was equal to the present total.

Actually, there were only two-thirds of the present total

spindles then existing, but these have been worked at the beginning of the century very many more hours per day than at present and the spindle hours run and the consequent wear and tear is approximately the same. Further, although the spindleage 30 years ago showed a steady increase, there is no sign of a corresponding increase in the replacement figures of recent years.

The Spindles in America are divided into :

Ring Spindles,
Mule Spindles,

and there has been no material advance in the equipment of Ring Spinning, which would cause obsolescence of the actual Spinning Frames.

The replacement of Mule Spinning by Ring Spinning might be considered from some angles as an improved type of Spinning, and thereby would necessitate replacement of Mule Spindles by Ring for obsolescence.

The figures show :

1925	2,588,000 Mule Spindles.	35,349,000 Ring Spindles.
1926	2,588,000	34,997,000
1927	2,588,000	34,140,000
1928	2,587,000	32,955,000
1929	1,584,000	33,245,000

It is obvious that even if this last change be admitted as obsolescence, the small proportion of Mule Spindles renders it a small factor.

We may, therefore, form a general conclusion that the replacement life of American Spinning Spindles from Wear and Tear is about 30 years.

The measure of Cotton Spinning Machinery by the " Spindle " unit often disguises the fact that a very great deal of important machinery exists in the processes preparatory to Spinning, and afterwards in such processes as Winding and Beaming.

It seems necessary to examine :

- (1) Whether the evidence available in England, unbacked by comprehensive figures, can indicate agreement with American figures.
- (2) Whether the other processes of Spinning follow the " Spindle " trend.

It is a very difficult matter to arrive at the average age of the Cotton Mills of Lancashire, but the opinion of a leading Valuer is that the Buildings, Plant and Machinery average date is about

1895-98, the general average date of the buildings being earlier and the machinery later than this.

This is supported by an investigation of the exact records of 20,000,000 Spindles, which affords an important sample.

The average age of the equipment, including buildings, of these Mills is 1898. The general average of Lancashire Mills is therefore 30-35 years, and excluding the war period, 25-30 years.

It must be clearly understood that the dates given throughout in this investigation are the original dates of the construction of the machines.

There is some considerable difference in the views of textile machinists and those of Cotton Spinners concerning the significance of the age of machinery.

It is held by the Cotton Spinner that machinery 20 years old, if it has been well cared for, may easily be more efficient than the newest machines, provided no important change in principle has taken place.

I shall not attempt to examine which view is correct.

I have seen Mules of 1886 working well and giving productions equivalent to similar machinery 20 years newer, but I have also found that much money has been spent on old machines which would have bought completely new ones, and it seems probable that the latter expenditure would have, in the long run, been wiser.

In the opinion of a textile machinist :

" . . . from my own experience and recent researches, it would appear that, provided the machinery has been run full time and has not during the period of its life been expensively modified to enable it to produce yarns different to which it was originally constructed to produce, it is mechanically desirable to renew it every 30-35 years.

" . . . from a combination of various factors we find Mills working with machinery 70 per cent. of which is nearing the end of its really fully efficient life."

The following details are taken from an exhaustive investigation of just over 200 Companies containing 20,000,000 Spindles (over one-third of the Spinning Mills) and 50,000 looms, or one-fourteenth of the Weaving Sheds.

As almost all the Spindles are engaged upon Coarse and Medium yarns, the details cover almost two-thirds of the " American " section of the Trade, and can be taken as fully representative of that section.

Certain of these Companies possess more than one Mill and comprise both Mule and Ring Spindles and Looms.

Detail of Buildings by date of construction :

	Before 1800.	1800- 1850.	1850- 1860.	1860- 1870.	1870- 1880.	1880- 1890.	1890- 1900.	1900- 1910.	1910- 1920.	1920
Buildings .	2	31	32	45	45	33	23	37	10	—
Extensions .	—	—	3	4	4	12	16	33	34	22

Totals : Buildings 258
Extensions 128

The date of the latest building is 1916, and of the latest extension, 1926.

NOTE.—In Mills not covered by this survey it is known that only three or four complete new Mills have been built since 1920 in the whole of Lancashire.

The years of the largest numbers of new buildings are :

1860 with 13
1870 „ 11
1875 „ 14
1885 „ 9
1907 „ 11

and the largest groups of three years :

1860-62 28
1874-76 27
1884-86 18
1906-08 25

These four groups comprising between them 38 per cent. of the total. There are no important groups of extensions until this present century, the most important being in the periods :

1905-1909
1912-1914
1916-1919

One would expect that the extensions were used mainly for the addition of :

(1) Card Room Machinery.

(2) Small Ring Spinning Plant to an existing Mule Spinning Mill.

The figures given later will be investigated to discover if this is the case.

Opening Machinery.—This section of a Spinning Mill has

undergone considerable modification during the last 50 years, and although the general principles are unchanged, detail has been very much improved. Machinists consider that the major parts of such machines would, by Wear and Tear, be in such condition that complete replacement after 30 years is necessary.

Detail of Opening Machines by date of construction :

	1860- 1880.	1880- 1890.	1890- 1900.	1900- 1910.	1910- 1920.	1920- 1930.	Total.
No. of Machines	38	122	340	746	540	483	2269
Per cent. .	1.4	5.4	15.0	33.0	23.9	21.3	100

The percentage which is past this standard of efficient life is 21.3 per cent., and the percentage which has not yet reached half its life is 28.4 per cent.

Replacement has been carried out for the last few years at a steady rate of 2 per cent.

Carding Engines.—These machines, of which the Mills in question possess 17,140, have altered little since the Flat Card was introduced. These machines are fully rigid, but owing to the essential fact that they must be capable of close accurate setting in their various parts, they demand a higher standard of mechanical efficiency and a more regular specialised attention than the Opening Machines. Their full life is considered to be 30–35 years.

Detail of Carding Engines by Date of Construction

	1860- 1880.	1880- 1890.	1890- 1900.	1900- 1910.	1910- 1920.	1920- 1930.	Total.
No. of Machines .	130	1,097	4,137	6,473	3,418	1,885	17,140
Per cent. . . .	0.8	6.4	24.1	37.8	19.9	11.0	100

The percentage which has had 30 years of life is 31.3 per cent.

Replacement is proceeding at a diminishing rate, which over the last five years is less than 1 per cent. per annum.

Draw Frames.—These are probably the simplest machines in the whole range of Textile Machinery. They are semi-flexible machines, and with periodic lining up should be good for 30 years.

Detail of Draw Frames by Date of Construction

	1860- 1880.	1880- 1890.	1890- 1900.	1900- 1910.	1910- 1920.	1920- 1930.	Total.
No. of Machines .	45	220	444	606	555	151	2,021
Per cent. . . .	2.2	10.9	22.0	30.0	27.5	7.4	100

The figure which has had 30 years of life is 35·1 per cent.

Replacement is proceeding at the rate of approximately 1 per cent. per annum.

Combers.—These machines are in a class by themselves, and demand constant attention by an expert. Their life under good conditions is similar to the preceding machines. Only 10 per cent. of the Mills examined contain these machines.

Detail of Combers by Date of Construction

	Before 1890.	1890- 1900.	1900- 1910.	1910- 1920.	1920- 1930.	Total.
No. of Machines .	Nil	Nil	28	194	224	446
Per cent. .	—	—	6·3	43·5	50·2	100

In this case, unlike all others, the number of machines of recent date is larger than in any other of the ten-year periods. It would be unwise to attach too great importance to this, but the fact that 93·7 per cent. of the machines are less than 20 years old is an indication of the unique position occupied by this type of machine.

Speed Frames.—These machines are fully flexible and their efficiency is impaired if they are not kept in good alignment. Modern practice has lengthened the machines steadily, but otherwise their detail is little changed.

	Before 1880.	1880- 1890.	1890- 1900.	1900- 1910.	1910- 1920.	1920- 1930.	Total.
No. of Machines .	556	1,699	2,316	3,442	2,443	899	11,355
Per cent. .	4·9	15·0	20·4	30·3	21·5	7·9	100

Here, 40·3 per cent. of the machines have had more than 30 years of life.

Spinning Machinery

	1860- 1880.	1880- 1890.	1890- 1900.	1900- 1910.	1910- 1920.	1920- 1930.	Total.
<i>Mules.</i>							
No. of Machines .	141	1,364	1,320	3,152	1,447	297	7,724
Per cent. .	1·9	17·7	17·1	40·8	18·7	3·8	100
<i>Rings.</i>							
No. of Machines .	—	485	1,624	3,310	2,229	1,138	8,786
Per cent. .	—	5·5	18·5	37·7	25·4	12·9	100

Although headstock parts replacements are often somewhat heavy, it is probable that the Mule has the longest life in the whole range, and hundreds of the Mules installed 40 years ago are still working quite satisfactorily.

The Ring Frame is a simple machine, and ordinary mechanical attention should enable it to keep running efficiently for 35-40 years.

Finishing Machinery.—Finishing Machinery comprises a varied selection of machines, such as Winding, Beaming, Reeling, etc. These are nearly all comparatively slow-running machines with few moving parts, and with proper oiling should continue to work almost indefinitely. The figures show :

	1860- 1880.	1880- 1890.	1890- 1900.	1900- 1910.	1910 - 1920.	1920- 1930.	Total.
No. of Machines	30	65	479	1,311	1,174	619	3,678
Per cent. .	0·8	1·8	13·0	35·6	31·9	16·9	100

The proportion of machines of less than 30 years' life is comparatively high.

It has been suggested that this is not due so much to the more modern machines in Lancashire as a whole, as to a change of practice. Winding and Beaming was originally done by the Weaving firm, but as Ring Spindles have increased the Winding and Beaming Machinery has been installed by the Spinning Mills. This would mean that the Winding and Beaming Machinery in Weaving Sheds is of much older date than in Spinning Mills. Experience of the machinery content of Mills would support this view, but a sufficient quantity of data is not available to support it with figures.

The above survey covers the whole of the Spinning Machinery.

A similar investigation has been made into the Weaving Section, which has been divided into :

- (1) Preparatory Machinery, and
- (2) The Looms proper.

The figures for the Weaving Preparation Machinery are :

	1860- 1880.	1880- 1890.	1890- 1900.	1900- 1910.	1910- 1920.	1920- 1930.	Total.
No. of Machines .	19	33	34	66	146	123	421
Per cent. . . .	4·5	7·8	8·1	15·7	34·7	29·2	100

The percentage of machines of less than 20 years' date is high.

For Looms

	1860-1880.	1880-1890.	1890-1900.	1900-1910.	1910-1920.	1920-1930.	Total.
No. of Machines .	5,956	6,597	7,045	12,327	12,546	2,571	47,042
Per cent. .	12·7	14·0	15·0	26·0	26·6	5·5	100

The average age of the Looms is earlier than any of the other machines, and in the Mills examined over 1,000 more than 60 years old are at work.

The Peak Periods of Replacement.—An examination of the peak years of replacement reveals the influence of prosperous periods. The significance of the 1906-9 period is particularly noticeable.

Details have been taken out of the leading three groups for all machines, with the following results :

	Opening Machinery.	Cards.	Combers.	Draw Frames.	Spoods.
Largest Replacement . .	1906-08	1906-08	1909-11	1911-13	1907-09
2nd Largest . .	1912-14	1909-11	1924-26	1907-09	1910-12
3rd Largest . .	1919-21	1898-00	1917-19	1891-93	1891-93
Per cent. of whole, comprised by these three groups	38	34	67	43	34

	Mules.	Rings.	Finishing Machinery.	Weaving Prep.	Looms.
Largest Replacement . .	1907-09	1906-08	1906-08	1920-22	1912-14
2nd Largest . .	1902-04	1911-13	1911-13	1912-14	1906-08
3rd Largest . .	1910-12	1920-23	1919-21	1924-26	1903-05
Per cent. of whole, comprised by these three groups	40	40	43	43	42

Apart from the 1906-9 period, which is by far the most important and which figures first in six cases and second in two cases, and is only missing in the secondary cases of Combers and Weaving Preparation, the 1910-14 period just before the war is important, appearing in nine cases and taking a leading part in Looms. The only post-war periods occurring are for Opening Machinery, Combers, Rings, Finishing Machinery and Weaving Preparation, in the last named two periods being prominent. The later period for Combers coincides with the change-over by American Mills to Egyptian Cotton. It is obvious that the prosperous periods have been responsible for a very large proportion of Lancashire

machinery. Owing to the leading position occupied by the above periods in the majority of the machinery sections it has been impossible to discover any direct relation between extensions to buildings and increases in carding engines and ring frames. The extensions in the absence of any more exact information might apparently have been necessitated by almost any of the machinery increases.

2. OBSOLESCENCE

The three main machinery developments in the Cotton Trade have been :

- (a) Ring Spinning.
- (b) Automatic Looms.
- (c) High-speed Winding.

These factors are all stressed in the recent report of the Government Inquiry into the Cotton Trade, as necessary if Lancashire is to recapture her lost trade.

It seems important, therefore, to determine if possible the rate at which these developments are taking place in Lancashire.

(a) *Ring Spindles*.—Ring Spindles have been in existence for many years. The International Federation figures available are as follows :

	Estd. Total Spindles.	Actual Returns.	Mule.	Ring.
1908, Aug.	52,817,582	46,664,236	38,996,741	7,667,495
1911, Aug.	54,522,554	48,028,180	39,977,255	8,050,925
1914, Mar.	55,971,501	50,568,794	40,791,564	9,777,230

The returns after the war are in somewhat different form.

Estimated Total Spindles in Lancashire

	Mulo.	Ring.
1923	44,043,000	12,538,000
1924	43,650,000	13,100,000
1925	43,651,000	13,465,000
1926	43,870,000	13,416,000
1927	43,816,000	13,509,000
1928	44,086,000	13,055,000
1929	42,776,000	13,141,000

From the pre-war figures it appears that Mule Spindles were increasing at the rate of 330,000 per annum, and Ring Spindles at the rate of 380,000 per annum.

As, however, the total estimated Spindles were increasing at

the rate of 570,000 per annum, it is obvious that the increased percentage of actual returns in the later pre-war years destroys the full significance of the figures.

If the larger percentage of returns was due to more returns from Ring Spindles, then the real rate of increase of Ring Spindles was less than appears, and the same applies to Mule Spindles.

Probably all that can be inferred is that the numbers of new Ring and Mule Spindles each year in the pre-war years were very similar.

It cannot, however, be inferred that the increase of Ring Spindles, small though it be, was entirely due to real obsolescence.

Wear and Tear would require the renewal every year of approximately $1\frac{1}{2}$ million Spindles per annum, and worn-out Mule Spindles might be replaced by Rings. This is more nearly Wear and Tear replacement rather than Obsolescence, but since the Ring Spindles were only increasing at the rate of 300,000 to 400,000 per annum, the conclusion must be that the bulk of the worn-out Mule Spindles were being replaced by new Mule Spindles again.

Since the war the average reduction in Mule Spindles has been 200,000 per annum, but Ring Spindles have increased by 100,000 per annum. This increase has been spasmodic, and actually the 1929 figures show no increase over 1924. The figures must be accepted with some reserve, but it is obvious that no important increase is taking place in Ring Spindles, nor are Ring Spindles replacing Mules to any appreciable extent. The conclusion must be that progress in this respect is almost negligible.

(b) *Automatic Looms*.—Lancashire possesses between 700,000 and 750,000 looms for the weaving of Cotton Cloth. We have seen that many of these are half a century old.

The substitution of automatic looms is a radical change and involves very definite problems of the conditions of work.

A half-way house is the addition of attachments rendering the Lancashire loom semi-automatic.

There are, however, as far as I can ascertain, less than 20,000 automatic looms and attachments in Lancashire district, or under 3 per cent. of the trade.

In fact, of the leading makes I am unable to trace more than 17,000 in existence, but other adopted types of various firms probably exist in small numbers.

Figures have been quoted somewhat higher than this, but I have been so far unable to obtain confirmation of them.

Granted that half of Lancashire looms are engaged upon fancy

or other cloths for which the automatic loom may be considered less advantageous there are only 5 per cent. of automatics. It has been impossible to obtain information whether these existing automatic looms are replacements or additions, but the view has been expressed by a loom-maker that the majority are additions, and that where there have been replacements they have replaced worn-out looms.

There is no indication that the rate of introduction of automatics is increasing in Lancashire, though the figures for all other Cotton Weaving countries all show important and constant increases.

The continent of Europe contains 70,000 automatics of one single make, or four times the number of all types in Lancashire. An experiment, which may have an important bearing upon the introduction of automatic looms, is proceeding at the Higher Walton Mill of the Lancashire Cotton Corporation, where a battery of 40 looms of each of three types of automatic looms and a battery of 40 looms with each of three types of automatic attachments have been installed, together with a battery of 40 Lancashire looms, and these 280 looms are to be worked for an extended trial under exactly similar conditions. The results of the experiment should be of great moment to Lancashire as a whole.

(c) *High-speed Winding*.—Here again the available data is most scanty, and what I have been able to obtain by direct inquiry is difficult to place in an available form.

No figures exist for the number of Winding Spindles in Lancashire, but by using several different methods and applying it to the figures available, it appears that there are at least $2\frac{1}{2}$ million Winding Spindles engaged upon Winding for both Warps and Hosiery Yarns.

Until the introduction of High-speed Winding, the most important change was the replacement about 1910 of winding overhead instead of from the side of the ring bobbin on the upright spindle machine. Since 1910, 250,000–300,000 Spindles have been converted, representing 10 per cent. of the estimated Spindles in existence, by a leading firm of makers. The introduction of High-speed Winding since the war was a most important innovation, but the progress so far has been slow. I can only find definite information concerning the introduction of 17,000 Spindles into the United Kingdom, and of these probably one-third are outside Lancashire.

With some reserve I believe that the number of High-speed

Winding Spindles in Lancashire Mills is to-day about 10,000-12,000, or $\frac{1}{3}$ - $\frac{1}{2}$ per cent.

The number in existence in the whole world is between 120,000 and 180,000 Spindles.

As an indication of the rate at which High-speed Spindles are being introduced into this country, I am able to give the figures for the leading makers.

Of their spindles in place, the percentages installed by years are as follows :

	England.		The World.
1927 . . .	13·8%	1927-28 . . .	18·2%
1928 . . .	24·9	1928-29 . . .	31·8
1929 . . .	28·9	1929-30 . . .	50·0
1930 (9 months) .	32·4		

In the survey of the Mills for which the earlier figures were given, less than 0·1 per cent. of the Winding Spindles were High-speed. It is interesting to note that the Mills so far absorbed by the Lancashire Cotton Corporation contained 400 High-speed Winding Spindles only.

The number now in possession of the Lancashire Cotton Corporation is 3,000, or rather more than 25 per cent. of those possessed by all Lancashire. To state that the adoption of High-speed Winding Machines by Lancashire would remain at a very slow rate because their advantages were nullified to a great extent when only piecemeal orders were being produced, is only to state a fact which applies equally to other forms of progress and to emphasise that only by means of large-scale amalgamation can progress be hastened.

CONCLUSION

It would seem that several important morals can be urged in the light of the foregoing facts, but it is no part of my object in this survey to do so.

The data originally available for my purpose was almost nil. I have indicated in several places the deficiencies of that which I have been able to collect.

In spite of this, however, I am convinced that they will be the means both of filling a gap in the existent information concerning our greatest export industry, and of inducing others with more time and opportunity than I possess to delve into virgin soil.

JOHN RYAN

Lancashire Cotton Corporation.

THE EFFICIENCY OF AMERICAN MANUFACTURING INDUSTRY

IN recent years a flood of statistical material bearing upon productivity and efficiency in American industry has been made available.¹ It appears to have created the impression that the undeniable increase in material prosperity in that country, revealed by such indices as the steadily mounting income per head and real wages, has been largely due to an increase in the knowledge, skill, ability and energy of the personnel of industry,² although many other factors, such as the presence of a large home market or freedom from industrial disputes, are often mentioned as contributing to it.³ The more cautious observers,⁴ indeed, have attempted to distinguish between "true progress," which may be defined as the attainment of greater material results with the same effort, and increased productivity which arises from superiority of natural resources and conjunctural advantages. But the line between these two is vague enough to make errors common; and cause and effect are often indistinguishable, as, for example, in determining whether

¹ See in particular :

Recent Economic Changes, chapters by L. P. Alford and W. L. Thorp.

W. Thomas, "The Economic Significance of the Increased Efficiency of American Industry," *American Economic Review Supplement*, March 1928.

W. Thomas, "Growth of Productivity," *Proceedings Academy of Political Science*, 1926-28.

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² See W. C. Mitchell, *Recent Economic Changes*, p. 862.

³ Most of these reasons are results rather than causes of the material prosperity. Even the presence of a large market, i.e. a large contiguous and densely populated land area, seems to have been over-stressed. The area, indeed, is so large that the movement of industries from one part to another, in order to save transport charges, is one of the chief causes of depressed industrial localities; and land transport is much more expensive than carriage by sea.

⁴ See J. M. Clark, "Inductive Evidence in Marginal Productivity." *American Economic Review*, Sept. 1928.

the increased use of machinery has arisen because of large profits to be made therefrom or large profits because of increased mechanisation. It becomes pertinent to attempt, therefore, some further analysis of the form which this alleged efficiency has taken, its reactions upon the process of distribution of wealth, and its connection with such peculiar elements in American industrial life as the doctrine of high wages, the economic isolation of the country and the intense utilisation of capital equipment.

1

Perhaps the most widely quoted indices in these discussions are those which show the aggregate physical output and the physical output per person employed. They disclose a very remarkable increase of productivity per wage-earner, over manufacturing industry as a whole and in the vast majority of industries taken separately. Now, by comparing physical production with deflated wages and salaries paid in manufacturing industry it is possible to deduce what changes have taken place in labour costs per unit of output. This is shown in Table I. In its compilation the greatest difficulty was that of discovering some satisfactory method of adjusting the wage bill for changes in prices. Since the purpose is to determine the labour costs, *to manufacturing industry itself*, per unit of manufactured goods, it would seem to be inaccurate to deflate by the cost of living index-number. What is wanted is the proportion of the total manufactured goods which would pass to the wage-earner if he spread his income over nothing but manufactured goods of every description.¹ The most suitable index seemed to be that prepared by Douglas,² which shows the price movement of nine main groups of manufactured goods and is based upon the Bureau of Labor's price statistics. Certain other points in Table I ought to be noticed. Perhaps 1921 ought to be eliminated from consideration as it was a very abnormal year. Column 5 is undoubtedly a more reliable representation of labour costs than column 4, since the change in the structure and administration of industry since 1899 has increased the importance of salaries in total cost of

¹ The point is of great importance because the wholesale price and the cost of living indices have followed widely divergent courses since 1899, the latter having taken up a much higher level, in relation to 1899, than the former. This gap appears to be quite unexplainable save by the hypothesis that distribution costs have risen considerably. But the question of increasing or decreasing efficiency in distribution is outside the scope of this article.

² See *Real Wages in the United States*, p. 527.

production. And it is hardly necessary to point out that to compare crude averages and general aggregates over such a long period is extremely hazardous. In particular, the unit of production may have changed in kind. It probably represents something more complex and of higher quality now than it did thirty years ago.

TABLE I.
Growth of American Manufacturing Industry.

Year.	Physical Production. ¹	Manufacturing Industries. ²			
	(1)	(2)	(3)	(4)	(5)
		Total Deflated Wages.	Total Deflated Wages and Salaries.	Wages Cost per unit of Output.	Wages and Salaries Cost per unit of Output.
1899	100	100	100	100	100
1904	122	124	127	102	104
1909	159	151	162	95	102
1914	169	178	196	105	116
1919	214	213	228	100	107
1921	170	221	243	130	143
1923	261	278	298	106	114
1925	275	278	302	101	110
1927	* 279	300	327	107	117

Preliminary figures.

But, taking the figures for what they are worth, the results which emerge are arresting. There appears to have been no tendency for labour costs to fall between 1899 and 1927. Although there is evidence of some reduction in them in the post-war period, they appear to be higher in this period than in the pre-war. In any case, it seems that the progressive replacement of labour by machinery in American manufacturing industry has not led to any reduction in the proportion of the product which accrues to labour. This result is contrary to the general belief of what happens during a period of rapid industrial "mechanisation."

One general drawback to the table above is that it makes

¹ "Growth of Manufactures," U.S. Census Bureau Monograph IX, and *Recent Economic Changes*, p. 449. The index is based upon production figures covering 50 per cent. of the total number of wage-earners employed in manufacturing as a whole.

² Census Bureau. The figures cover the whole of manufacturing industry and therefore may not be strictly comparable with the index of production.

no allowance for the cost of raw material, and a direct comparison of labour costs with total costs may be misleading where the relation between the materials used and the goods produced changes appreciably. But even when wages and the "value added by manufacture" are compared, the returns to labour hold their relative position. For the argument which follows some account must be given of the "added value" statistics provided by the Bureau of the Census. They represent the value of products (*i.e.* the selling price at the factory of all products manufactured during the year, which, of course, may differ from the value of the products sold) less the cost of materials used (*i.e.* fuel, rent of power and heat, mill supplies and containers as well as materials which form a constituent part of the product). Values added by manufacture contain, therefore, in addition to wages and payments on capital in the form of interest or profit, such items in cost as depreciation, rents of offices and buildings other than factory or works, insurance, ordinary repairs, advertising and other sundry expenses. In Table II the wages paid in manufacturing industry are compared with the total "added values." In column I, deductions have been made from "added values" for depreciation.

TABLE II.

Proportion which Wages and Salaries bear to Net Value added by Manufacture in U.S. Manufacturing Industry.¹

Year.	After Deduction for Depreciation.	Before Deduction for Depreciation.
1899	53	50
1904	54	51
1909	55	51
1914	58	54
1919	57	54
1921	64	59
1923	58	54
1925	56	52
1927	—	51

If the abnormal year 1921 is ignored there appears to be no tendency, either in the corrected or the uncorrected index, for the relation between wages and added value to change, the general movement in the post-war years showing a return to the position early in the century.

¹ P. Douglas, *Real Wages in the U.S.*, pp. 540-44.

An important corollary immediately suggests itself. If we assume that such costs as advertising, rents, insurance, depreciation, which are included in added value, have moved parallel with added values themselves,¹ then, since labour charges have remained a constant proportion of added value, the payments to property, whether in the form of interest or profits, must also have remained roughly a constant proportion of these values; which means that between 1899 and 1927 the cost,² excluding materials, of each unit of output has been split up in a constant fashion between labour and capital, using this latter term to cover both enterprise and saving. This condition may, of course, be looked at from two aspects. Considered from the angle of return, it means that the net income from the manufacturing activity involved in producing one unit of output has been divided all along in the same proportions between those who are paid wages and those who save or direct. From the other angle it means that, in so far as wages, interest and profits can be considered necessary costs, then these costs of labour, on the one side, and those of saving and enterprise on the other, have retained a constant relation within unit cost.

Further evidence of the tendency of labour "costs" to maintain or increase their importance is supplied by the manner in which the national income was distributed between labour and property, 1914-27. Of course national income is the product of more varied activities than those of manufacturing industry.³ It is, nevertheless, suggestive to find that for the whole of economic activity the cost of labour—or, to look at it from the other angle, the return to labour per unit of output—had not decreased. Indeed Table III shows that it had actually increased,

¹ Most of them probably have. Thus in Table II above, allowance for depreciation does not make much change in the final result; and many of the items are probably small in the aggregate. Advertising, however, has probably increased out of step with the other items.

² Of course we immediately become involved here in the insoluble problem of determining what is cost and what is return. From the narrow point of view, the payment of interest in debentures is a cost, but not profits to shareholders. But in the long run these profits must be forthcoming if the business is to remain alive. And although large entrepreneurial profits are not usually considered costs, it may be that ability of the highest kind would not be forthcoming unless such profits could be made. Here we shall confine ourselves to a distinction, which lacks a clear-cut line, between what the worker gets out of manufacturing industry and what those who save or those who plan, experiment and risk with savings get out of it.

³ M. A. Copeland, *Recent Economic Changes*, p. 775, estimates that only about one-fifth of national income derives from manufacturing industry.

suggesting that, outside manufacturing industry, labour costs have been forced up.¹

TABLE III.

Proportions of Labour and Property Income in Total Realised Income in the United States, 1913-26.²

Year.	Share of Employees.	Share of Rents, Interest, Dividends and Profits withdrawn.
1914 . .	52	48
1921 . .	57	43
1922 . .	57	43
1923 . .	58	42
1924 . .	58	42
1925 . .	57	43
1926 . .	59	41
1927 . .	59	41

II

Having now explained the manner in which each unit of production has been divided between labour and "capital," it becomes necessary to consider what returns have actually accrued to each unit of labour and capital in recent years. The former can be disposed of summarily. Real wages and hourly earnings in manufacturing industry both show two very marked characteristics. Between 1899 and 1914 the position of the wage-earner improved little; between 1920 and 1927 there was a very rapid increase both in real wages and earnings per hour.³

It is more difficult to ascertain the direction of rates of return upon the property of industry—i.e. return upon the compound effort of saving and utilising the saving. The following line of approach, however, appears legitimate. It has been shown that the aggregate return on "capital" has roughly kept step with wages and hence with production. Whether the average rate of return on capital has been rising or falling will depend upon whether the volume of capital has been increasing more or less

¹ J. M. Clark has an observation, in another connection, which probably explains this. He points out that the increase of wages that naturally rests upon increased output in industries where increased supplies of capital are being invested tends to become general even in processes which are not mechanised and thus forces up labour costs there. (*American Economic Review*, September 1928, p. 452.)

² M. A. Copeland, *Recent Economic Changes*, p. 769. These figures must be accepted with reservation, since corporate surplus is not included as part of national income.

³ See P. H. Douglas, *Real Wages in the United States*, pp. 205, 247.

quickly than production. Obviously, if aggregate investment has increased more rapidly than total physical production, the return on each unit of capital must have been falling and vice versa. The aim, then, must be to establish the connection between physical production and the volume of capital invested in industry.

The difficulties involved in measuring changes in the capital equipment of manufacturing industry are enormous and are very probably insuperable. If values are taken, the task of allowing for price changes immediately intrudes, for what it is necessary to measure is the total resources placed at the disposal of industry, and this, in any one year, consists of resources contributed at different times with different price levels ruling; and it is patently impossible to find any physical unit which would constitute an ideal index of capital investment. Primary horse-power established is most often used as a rough index of the increasing amount of material equipment in industry,¹ and this is given in Table IV below. One other investigation has been carried out to determine the capital investment in industry. Douglas, using the capital statistics based on value which are collected by the Census Bureau, and making ingenious allowances for price changes, has compiled an index of fixed capital—i.e. manufacturing machinery and buildings—from 1899 to 1922.² The value of the census material is very much open to doubt, but it probably shows trends more accurately than aggregates in any one year. Moreover, it appears generally to have been collected on a cost basis, but Douglas has made no attempt to allow for depreciation or obsolescence. This index also is given below. When the h.p. index is compared with it there is a rough similarity

¹ It need hardly be pointed out that such figures are, nevertheless, of very limited value for the purpose. The Census figures are for the rated horse-power of engines, motors and other prime movers. It makes no allowance for h.p. installed but never used. A change in the technique of power production—e.g. the replacement of steam engines by steam turbines—will appear to reduce the h.p., whereas the newer system is so much more efficient than the old that a lower rated h.p. can do the same work.

See W. L. Thorp, *Recent Economic Changes*, p. 175 ff., for other technical points.

The installation of power may, to some extent, be independent of the volume of machinery. Thus Census Monograph IX, "Growth of Manufactures, 1928," p. 29: "There has probably been a disposition in some industrial establishments to provide power more generously, thus increasing the installation of power for a given body of machinery . . . increases in primary h.p. considerably overstate the growth of manufactures." The h.p. figures for census years prior to 1919 include data for rented power other than electric, whereas the statistics for 1923 do not include such data.

² *American Economic Review Supplement*, March 1928.

between the two from 1899 to 1914, but after that they diverge sharply.

TABLE IV.

Growth of American Manufacturing Industry, 1899-1927.

Year.	Physical Production.	Total Primary h.p. Installed.	Production per h.p.	Douglas Index of "Fixed Capital."
1899	100	100	100	100
1904	122	134	91	138
1909	159	185	86	198
1914	169	222	76	244
1919	214	292	73	387
1921	170	—	—	431 *
1923	261	330	79	
1925	275	356	77	
1927	279	—	—	

* 1922.

But whichever index be taken it becomes apparent that the resources sunk permanently into industry have increased more rapidly than production, and that, in consequence, the rate of return on capital would seem to have been falling steadily since 1899.

III

The statistical material in the foregoing sections is beclouded with many uncertainties, but, assuming that it is satisfactory, the following generalisations appear to be true for the first quarter of the twentieth century.

1. From the point of view of production costs, the average labour cost per unit of output in manufacturing industry has not fallen to any marked degree. From the point of view of distribution this means that labour is obtaining the same share of total output as formerly.

2. Within the unit cost of production the relation between average labour and "capital" costs remains the same. From the other angle this means that the proportionate returns to labour and "capital" have been constant.

3. The investment of capital has increased more rapidly than physical production. This appears to be particularly the case since the end of the war.

From propositions 1 and 2 taken together it follows that the returns on capital have remained a constant proportion of total production. This conclusion, taken with proposition 3, leads to the result that the return on each unit of capital has fallen,

with the reduction perhaps more marked in the post-war than the pre-war period.

At first sight it appears remarkable that during a period of increasing material wealth the return upon each unit of capital investment should be falling. This situation is perhaps the more surprising for the post-war years, when national income per head has grown so rapidly. And yet there are certain facts concerning the period 1922-28 which support this conclusion. The yield on common industrial stocks and bonds have both fallen continuously and substantially in these seven years.¹ Rates for long-time money also showed an almost continual downward trend. It is evident that the resources for investment could be acquired more cheaply in 1922 than in 1929. It is not easy to obtain an estimate of the actual return on invested capital. Figures purporting to represent corporation investment are notoriously unreliable. Most indices of profits tend to exaggerate by failing to take into account losses as well as profits, and this factor is of particular moment in a dynamic industrial society where experiments are made freely and failures scrapped rapidly. Perhaps the most reliable index is that of incomes reported by corporations for income tax purposes, since it allows for the deficits of corporations reporting no net income.²

TABLE V.

Corporate Income Tax Returns in United States.

Year.	Net Income of all Reporting Corporations. (Millions of dollars.)
1920	5,874
1921	458
1922	4,770
1923	6,308
1924	5,363
1925	7,621
1926	7,504
1927	5,757

In view of the rapid accumulation of capital investment in the period the absence of a consistent upward trend in corporate income appears to lend some support to the view that rates of return were, at least, not on the increase. The figures of national

¹ See *Recent Economic Changes*, Chapter X.

² Quoted from *Recent Economic Changes*, p. 854, where several weaknesses of the figures are pointed out. Undoubtedly the statistics are affected by tax evasion, but the trend will not be affected unless there has been progressive evasion.

income arranged to reveal the movements of that part of the national income which accrues as rent, interest, dividend and profits—i.e. all payments other than those to employees—show that money incomes, adjusted to 1925 prices, have moved more slowly than horse-power figures.

TABLE VI.

Rent, Interest, Dividends and Profits Withdrawn¹ and h.p. installed in Manufacturing Industry in the United States.

Year.	Rents, Interest, Dividends and Profits. (In 1925 dollars.)	h.p. installed.
1914 . . .	100	100
1919 . . .	103	131
1920 . . .	96	—
1921 . . .	94	—
1922 . . .	103	—
1923 . . .	111	148
1924 . . .	117	—
1925 . . .	123	160
1926 . . .	122	—

It is not improbable, therefore, that running a business and investing money in a business became less remunerative per unit of capital invested during the period when real wages were rising. So far as the return to the entrepreneur is concerned, the theory that profits tend to a minimum through increasing stability in the economic system and the appearance of more general competition might well account for the fall here. But the reason for the fall off in the return upon saving, the cause of the situation in which the investor receives less on his unit outlay, is not so obvious. Some light will be thrown upon this, for the post-war period, in the next two sections.

IV

Following the theory of marginal productivity it would be expected that a change in the relation of labour and capital employed in production, such as that which has taken place in the United States, would, of itself, tend to cause the price of labour to rise and that of capital to fall. But, in actual fact, the preceding argument has little direct connection with marginal costs and efficiency. It deals solely with average costs and prices. Moreover, where fundamental technical changes are occurring and where modifications in supply and demand curves themselves are taking place, a static theory can have no useful

¹ Based on Copeland, *Recent Economic Changes*, pp. 763 and 769.

application. And there seems little doubt that in the past ten years the demand and supply schedules for both labour and capital have been under the influence of peculiar forces. To deal with labour first.

The influence which the restriction of immigration must have exercised upon the price of labour is a matter of general knowledge. But apparently other factors have also been in operation to explain the phenomenal post-war increase in real wages. Mr. Ford has for many years been arguing that it is sound economic policy to pay higher wages than the higgling of the labour market would produce, on the grounds that the increased income of the wage-earners enlarged and stabilised demand and thus made further industrial expansion possible. His views are apparently gaining wide currency in scientific, political, trade union and business circles. Quite recently Professor W. C. Mitchell has given it as his opinion that the recovery of American industry from the 1921 depression was hastened by the maintenance of wage rates.¹ Mr. Hoover, after the Stock Exchange crash in the late part of 1929, was successful in extracting from a strong committee of industrialists a promise that they would "not initiate any movement for wage reduction," and that "it was their strong recommendation that this attitude should be pursued by the country as a whole," as "the consuming power of the country will thereby be maintained."² The American Federation of Labor, approaching the question of wages from a different angle, reaches approximately the same position by demanding that "wages should rise proportionately with the increased productivity of labour." And finally, it appears that large groups of business men are equally wedded to the doctrine. If these views are as widely acted upon as enunciated they are bound to have important repercussions upon the price of labour. How far they are so acted upon it is impossible to determine;³ and it is patent that merely to maintain wage rates during a depression does not maintain the consuming power of the wage-earners during a depression. As the widespread unemployment in 1930 showed, the business man, even if he does not reduce rates, can and does reduce the numbers he employs. So that, if the demand for labour is elastic, the policy of maintaining rates might well lead to a smaller consuming power in the hands of wage-earners

¹ *Recent Economic Changes*, p. 885.

² Quotations from the report issued by the Committee.

³ There appears to have been a strong disinclination among employers to reduce wage rates during the depression of late 1929 and 1930.

than if the rates were flexible. The history of the 1921 depression and recovery suggests that what really happens is that, through the maintenance of wage rates, when business begins to expand again the increased numbers employed are taken on at the higher rates. Consuming power is, therefore, augmented not so much in the depression as in the succeeding boom. But it has been shown earlier that, in effect, the demand of the American Federation of Labor has been met and wages have increased with productivity. The development of this new element in the demand for labour will probably have a much greater effect in maintaining wage rates than aggregate wages paid. But, however wrong he may be in this belief, if the average business man considers that in paying wages he is buying two quite distinct things—labour and a stable and expanding market—the net effect may be to establish a demand curve for labour rather above the old.

In treating of the supply and demand for capital it is logically impossible to distinguish cause and effect. The prospects of increased profits from the use of more machines in production undoubtedly would tend to intensify the demand for capital. But, at the same time, the realisation of these profits would provide the means for supplying this capital, so that the apparent cause of the important changes in American industry was intensified by its own effect. From the side of property, however, the rapid increase in the volume of savings appears to have created an entirely new situation. Annual national savings, after allowing for price changes, seem to have been about twice as great in 1922–27 as in the thirteen years before the war and in 1925–27 more than double the pre-war savings.¹ This suggests new habits of and a new capacity for saving which are not likely to be modified so long as income per head is maintained. One important element in enlarging and consolidating the practice of saving is the tremendous amount of corporate saving which is imposed upon the involuntary shareholder. Copeland's estimate shows that, in 1925 in manufacturing industry, more than one-third of net income was added to surplus,² and a sample collected by the Federal Trade Commission of corporations, which might be assumed to be more than normally prosperous, only distributed one-third of their income in cash dividends.³ This represents one part of national savings which is normally available for industrial extension, and within limits can be tapped without any regard

¹ *Recent Economic Changes*, p. 674.

² *Ibid.*, p. 790.

³ *Stock Dividends*, Federal Trade Commission, p. 11 et seq.

for the probability of the corporation being able to earn interest on it. The relation between the supply of capital and its price appears, therefore, to have been radically modified in two directions: saving by the individual has become much easier, and the individual, because of corporate practice, has much less control over the volume of saving effected by him. It seems likely that a new supply curve for capital, rather below the old, now represents the position in the market for new capital.

It is possible that the mechanism for the distribution of wealth in the United States has been slipped into a different gear in the last ten years. The change is analogous to that which would be produced in a society in which economic activity was wholly regulated by the state, if a general wage increase were ordered and the cost of it met by reducing the rate of interest allowed on compulsory individual savings. But if this is the case, then attempts to plot changes in industrial efficiency by recourse to objective indices such as labour costs or capital costs become meaningless. That can best be explained by example. Suppose a given community in which 100 units are produced, and 60 accrue to labour and 40 to capital. Suppose, further, that there is a sudden change, from whatever reason, so that the distribution is now 70 to labour and 30 to capital—output and the methods of production remaining the same. Then the only available methods of determining manufacturing efficiency would record changes in it. The only satisfactory test, however, would be, not labour cost or capital cost, but the total income of the community. If this latter index be employed, then any hope of estimating changes in the ability of the personnel of industry or the efficacy of machine methods is destroyed, since an increase in national income might arise from (say) the discovery of more convenient natural resources, the influence of which it would be impossible to distinguish from those of increased efficiency, which could be regarded as progress consciously planned. This appears to be the fundamental obstacle in interpreting the American figures. If labour costs have not fallen, is this because labour has not become more "efficient" or is it because the process of distribution has been modified? If the return on capital has fallen, is this because savers have become more efficient—in the sense that they can save one dollar with less effort than previously—or because less productive gain accrues from investment than formerly? Is America rich because it is rich in materials and sources of power, or is it rich because it has made itself rich? In recent years the entrepreneur in the United

States has apparently rendered more difficult the answers to these questions by influencing the mechanism of distribution in two ways: firstly, by offering a price for labour which he believed was a composite price for labour effort and a potential market; secondly, by making a large body of capital savings an automatic process independent of prices.

The nature of the problem which faces us may be put into simple concrete terms. Suppose, for example, the technical methods and system of organisation of American industry had remained unchanged between 1920 and 1929. Suppose that, when businesses and industries had expanded, they had simply duplicated the existing machines and factories. How much poorer materially would the United States have been than it actually is? Yet a final answer to this question stubbornly resists all statistical inquiry. If, indeed, industry has become more efficient one would have expected costs, and with them prices, to fall. The use of the price index, however, is complicated by possible variations in the volume of circulating medium, and in any case there was no appreciable fall in prices in 1922-28.¹ Every objective

Indices of Wholesale Prices in United States.
(1926 = 100)

Monthly Average.	Raw Materials.	Semi-manufactured Articles.	Finished Products.
1922 . . .	96	99	97
1923 . . .	99	119	99
1924 . . .	98	109	96
1925 . . .	107	105	101
1926 . . .	100	100	100
1927 . . .	97	97	95
1928 . . .	99	97	97

test of industrial efficiency appears to present theoretical weaknesses; and many of the apparent conclusions to be drawn from the statistical material which has been presented are surprising and inconsistent with general opinion and common observation. So much so that perhaps the strongest presumption of all is that the statistical material available, particularly concerning physical production and labour costs, is not reliable when used for com-

¹ The Bureau of Labor indices of wholesale prices show that the prices of finished products rose until 1925 and have since declined to about the 1922 level, following, in a rough fashion, the prices of raw materials.

parisons over long periods during which industrial technique and organisation have changed rapidly. But if generalisations, based on statistics, are to be made of the trend of efficiency in American manufacturing industry, the following suggestions carry weight :

1. American industry can be shown to be increasing in efficiency only in a special sense. Labour costs have not fallen. It is true that average physical production per wage-earner has risen considerably. Who would argue, however, that an individual business had increased its efficiency by increasing its output per worker without taking into account the cost of the machinery which had made it possible? Undoubtedly the change which has come over American industry has been helped by the swelling of the volume of savings. Mechanisation has been pushed to a point which would otherwise have been impossible. This would suggest that the real efficiency at the back of the American situation is that of the individual savers, who now do the same thing for a lower price. Yet even the increased efficiency of the savers is, to some extent, action enforced by the policy of corporations in accumulating reserves. Whilst industry has been using more capital the rate of return to it has been falling. This must partly be due to the use of the capital in less and less remunerative directions. But this movement would also be consistent with its uneconomic and wasteful use. The possibility of uneconomic investment merits more than passing notice.

It is to be expected in a period of industrial development so rapid as that of 1920-30, that a good deal of inefficiency would creep in and be tolerated because of the general prosperity. In many directions uneconomic developments are to be observed.¹ The frantic speed at which mergers were formed merely in order to make gains from the sale of securities brought into being many economic units which were technically and commercially ill-conceived.² Many of the biggest concerns, perhaps to the greatest extent in the automobile industry, found themselves in receipt of so large a net income that, with the habit of saving,

¹ See *Waste in Industry*. Committee of the Federated American Engineering Societies.

² For some account of this see an address by W. L. Thorp "Mergers and the Concentration of Industry." It is also worth while remarking a special inquiry undertaken by the Dow Jones agency, which shows that the stocks of a group of representative mergers formed 1923-29 had declined 60 per cent. between their high price of 1929 and August 1930. The reduction for all corporations was only 39 per cent. Apparently the depression of 1930 is already bringing liquidation and revealing the technical weaknesses of many mergers formed in the boom.

they were tempted to branch out into vertical and lateral integration, which is of doubtful advantage.¹ Prosperity leads to over-building, particularly where capital at a low price is plentiful, and there seems plenty of evidence of increasing over-capacity in many American industries.² One form of waste, often overlooked in a period of rapid expansion, takes the form of excessive experimentation, which the general spirit of optimism produces, and which leads to nothing. Machinery is scrapped earlier, lines of goods which have been advertised in the market discarded more promptly than is perhaps economically justified; more small businesses start and fail. It may be, therefore, that American industry is making an inefficient use of capital; that the price offered for capital is falling partly because the supply has increased but partly because the demand has decreased.

2. The manner in which labour costs have been maintained raises the question of the future of American exports. In most other industrial countries since 1920, the aim has been to force down wage rates in the hope of cutting labour costs. How can the United States hope to export, in order to meet the surplus capacity which is developing in many industries, if labour costs are maintained at their high level? The answer appears to be

¹ See the writer's "Factors in Industrial Integration," *Quarterly Journal of Economics*, August 1930.

² The measurement of surplus capacity is extremely difficult, and such surplus obviously varies with such factors as demand price, the price of raw materials and wages. But in many industries there is such marked over-capacity that undoubtedly there must have been waste and reckless expansion. Thus in 1927, whereas the total installed capacity of saw-mills in the United States was 117 billion feet per year, the largest amount of lumber ever produced was about 46 billion feet (*Some Public and Economic Aspects of the Lumber Industry*, Report No. 114, U.S. Dept. of Agriculture, 1917, p. 60). Between 1923 and 1928 the wheat-flour milling industry showed an operation of only some 56 per cent. of output to capacity (see *Survey of Current Business*). The bituminous coal industry has for many years had an output capacity and a supply of labour at least 25 per cent. greater than was necessary to supply its peak demands (*Report of U.S. Coal Commission*, Part I, pp. 202-33). A special report by the Bureau of Commerce on the knitted outwear industry in Philadelphia showed that one-half the machines worked 50 per cent. of full time or less. Between 1926-28 the Gray-iron foundries appear to have been operated about half time (*Survey of Gray Iron Foundries*, U.S. Dept. of Commerce, Bureau of Foreign and Domestic Commerce, and *Trends in Foundry Production*, Bezanson and Gray). The shoe factories in U.S. in 1925 appeared to have a normal capacity of about 80 per cent. more than actual output (see Report by Boston Chamber of Commerce, *Shoe Manufacturing Industry of New England*). Even in steel production the average of the separate monthly figures, as shown by the Survey of Current Business, recording the percentage output to capacity, was, for the period 1926-1929, only 86 per cent. The automobile industry is a special case. Up to 1929 it was catering for a rapidly increasing market. But that market is bound to become satiated finally, and, when the industry is merely engaged in supplying replacements, it seems inevitable that over-capacity will appear.

that she cannot. The proportion which the value of exports of manufactured goods bear to the total production is shown below.

TABLE VII.

Relation between Production and Export of Manufactured Goods in U.S.A.¹

Year.	Percentage Exports to Production.
1899	9.8-10.5
1904	8.6- 9.2
1909	7.3- 7.8
1914	9.3-10.0
1919	13.9-14.6
1921	9.8-10.3
1923	6.7- 7.0
1925	7.6- 8.0
1927	7.7- 8.0

The manufacturing industry of the United States was less dependent upon exports in the post-war years than at the end of the nineteenth century. It may be argued, of course, that the rapid expansion of the home market meant that producers found no need to enter into overseas markets. On the other hand, the decline in the relative position of exports has gone on despite the efforts of the Federal Government, since 1920, to develop such trade. It seems that the process by which wealth is now distributed in the United States and the maintenance of the present level of wages is very much dependent upon the tariff. With the tariff down the competition of other countries in which efficiency is sought by reducing labour costs would undoubtedly become severe. And if that happened the whole question of restricting the supply of labour by immigration regulation, which forces up wages, would come under discussion.

3. Thirdly, the basis of American prosperity, as it has been suggested above, raises the query of how long present trends can continue. The fifteen years before the war was a period in which real wages increased very slowly and labour costs were constant. The post-war period has been one of real wages rising much above the pre-war average, with labour costs also above pre-war. Can the United States continue at this level of labour costs? The answer seems to depend upon the future of the supply and demand for labour and capital. Will the theory concerning the economy of high wages survive a serious and prolonged

¹ *Commerce Year Book*, 1929, Vol. I. p. 104.

depression? Will corporations, in an increasing scale, be able to bluff the shareholder and impose unremunerative saving upon him? Will the increasing national income per head bring such heightened standards of living that the present scale of saving will be reduced? These are questions to which the depression which has followed the Stock Exchange crash of 1929 may give answers.

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MARGINS, EXPENSES AND PROFITS IN RETAIL TRADE IN THE UNITED STATES AS STUDIED BY THE HARVARD UNIVERSITY BUREAU OF BUSINESS RESEARCH

I

THE article on retail profits in the September 1929 issue of the *ECONOMIC JOURNAL* by W. R. Dunlop suggested the desirability of presenting for comparison a summary of the data gathered by the Harvard Bureau of Business Research on margins, expenses and profits of several types of retail business in the United States. The findings of the Bureau at some points agree with those of Mr. Dunlop; at others the divergencies suggest differences in English and American practices as well as possible differences in competitive conditions.

At the outset it may be useful to explain briefly the objects of the Bureau and its methods of procedure. The Bureau of Business Research was established in 1911 primarily for the purpose of obtaining teaching material for use in the Harvard Graduate School of Business Administration, founded two years earlier. Since the largest hiatus in the needed teaching information appeared to be in the general field of Marketing, the attention of the Bureau was directed to this field. After some preliminary investigation, the desirability was seen of determining reliable standards for the cost of doing business in retail and wholesale trade to provide a yardstick for the evaluation of management policies and methods. Consequently, since its inception the Harvard Bureau of Business Research has been concerned primarily with studies of the margins, expenses and profits of retail and wholesale trade. In the initial investigation, directed to the ascertainment of the cost of doing business in retail shoe stores, the necessity immediately was discovered of establishing a uniform classification of accounts as the basis for collecting figures from individual merchants. On the basis of such a uniform classification of accounts the effort was made to obtain annual profit and loss statements from a representative sample of retail shoe stores. After the initial results of the retail shoe store study had proved the validity of this general approach, the same methods of procedure were applied during subsequent years to the following retail and wholesale trades :

Retail Automobile Tire and Accessory,
Wholesale Automotive Equipment,
Building Materials,
Department Stores,
Retail Drug,
Wholesale Drug,
Wholesale Dry Goods,
Retail Grocery,
Wholesale Grocery,
Retail Hardware,
Retail Jewellery,
Wholesale Paint and Varnish,
Wholesale Plumbing and Heating Supply,
Retail Stationery and Office Outfitting,
Wholesale Wall-paper.

In all except the preliminary years of this work, studies have been conducted with the active co-operation of trade associations and, in a majority of instances, with the financial support of these organisations. For all of these studies bulletins presenting the results have been published as soon as the Bureau was confident of the reliability of its data. This series of bulletins now numbers over 80, presenting conclusions drawn from the analysis of more than 17,000 profit and loss statements for retail and wholesale businesses. As yet no studies have been made of expenses and profits of chain stores.

All the Bureau's studies have been characterised by certain standard methods and policies, as follows :

(1) All reports are obtained at first hand from business firms, either by mail or by direct personal solicitation. Anonymous reports are not accepted by the Bureau.

(2) All data obtained from business firms are regarded and handled as strictly confidential. Reports are coded upon receipt, names of individual co-operating firms are never revealed, and findings are presented in such a form as to prevent the disclosure of the figures of individual firms, even anonymously, unless specific permission for publication of individual figures has been granted. Under no circumstances do members of an industry, students in the Harvard Business School, or any other persons outside the immediate organisation of the Bureau have access to the data secured from individual firms.

(3) Profit and loss statements are submitted to the Bureau on a standard form developed for each trade, with precise definitions of the items to be included under each heading.

(4) Practically all the data presented in the Bureau's findings are percentages of net sales, that is, gross sales less returns of merchandise by customers and allowances to customers.

(5) Gross margin represents the difference between net sales and the cost of merchandise sold. It includes amounts received as cash discounts on purchases and has been subjected to deductions for stock shortages and inventory depreciation.

(6) Salaries of proprietors, partners and executives, whether actually drawn or merely imputed, are included as an expense.

(7) Imputed rentals of owned buildings, as well as insurance, taxes, repairs and depreciation on real estate, and any other expenditures in lieu of rentals, are included in the rent figure.

(8) Interest on owned capital invested in the business, as determined from the net worth, exclusive of real estate, shown by the balance sheet, is charged as an expense at the rate indicated as the going one for the particular concern.

(9) The net profit and loss figures consequently represent profit in the sense understood by such economists as Walker, Ely and the late Professor Allyn A. Young, as well as a number of continental economists.

(10) In addition to the net profit or loss figures, data also have been presented in the Bureau's bulletins in recent years for net gain or loss. This figure includes returns in the form of interest as well as some incidental revenue; and it is this figure which the business man commonly thinks of as "net profit." The figure for net gain is given both as a percentage of net sales and also as a percentage of net worth (including real estate owned and used in the business).

(11) Stock turnover, or rate of stock-turn, as used in these studies, does not refer to the net volume of business, but rather to the number of times a year which the average stock is sold and replaced. This figure is computed ordinarily by dividing the cost of merchandise sold by the average inventory at cost.

(12) The so-called common figures presented in the Bureau's findings are not in the last analysis mathematically determined, but represent a combination, tempered by judgment, of the mode, the median and the average of the two middle quartiles as determined from a frequency distribution. Such a frequency distribution is shown in Table I, presenting the array of net profit or loss figures for 352 department

stores with sales less than \$1,000,000 reporting for the year 1925.

TABLE I

Frequency Distribution of Net Profit or Loss Percentages 352 Department Stores with Sales under \$1,000,000 reporting for 1925.

(Net Sales = 100%)

Losses.										Profits.									
8-00 and over.	7-99- 7-00.	6-99- 6-00.	5-99- 5-00.	4-99- 4-00.	3-99- 3-00.	2-99- 2-00.	1-99- 1-00.	Less than 1-00.	Less than 1-00.	1-00- 1-99.	2-00- 2-99.	3-00- 3-99.	4-00- 4-99.	5-00- 5-99.	6-00- 6-99.	7-00- 7-99.	8-00 and over.		
11-21	7-78	6-84	5-85	4-92	3-93	2-97	1-98	0-92	0-02	1-00	2-01	3-00	4-00	5-00	6-02	7-05	8-15		
12-61	7-75	6-19	5-72	4-92	3-91	2-92	1-96	0-91	0-02	1-00	2-04	3-02	4-03	5-04	6-20	7-15	8-25		
11-86	7-43	6-48	5-66	4-89	3-86	2-89	1-86	0-86	0-02	1-02	2-14	3-05	4-12	5-04	6-26	7-16	8-51		
11-04	7-29	6-11	5-66	4-87	3-72	2-88	1-85	0-83	0-03	1-06	2-15	3-12	4-14	5-07	6-48	7-17	8-56		
9-27	7-23	6-52	5-52	4-83	3-68	2-86	1-84	0-82	0-04	1-08	2-15	3-16	4-19	5-09	6-48	7-82	10-31		
8-34		6-02	5-45	4-80	3-61	2-82	1-83	0-76	0-04	1-09	2-15	3-19	4-21	5-29	6-48	7-93			
8-01			5-12	4-75	3-61	2-82	1-83	0-74	0-05	1-19	2-36	3-20	4-21	5-50	6-85	7-94			
			5-30	4-74	3-41	2-80	1-82	0-69	0-05	1-21	2-42	3-21	4-27	5-50					
			5-18	4-69	3-10	2-65	1-76	0-68	0-06	1-21	2-43	3-22	4-28	5-59					
			5-12	4-67	3-37	2-61	1-75	0-65	0-07	1-22	2-44	3-24	4-31	5-49					
			4-61	3-32	2-53	1-65	0-64	0-07	1-26	2-52	3-25	4-32	5-56						
			4-58	3-32	2-16	1-55	0-59	0-10	1-27	2-52	3-26	4-37	5-65						
			4-56	3-31	2-41	1-54	0-56	0-15	1-27	2-58	3-31	4-40	5-70						
			4-11	3-26	2-10	1-53	0-44	0-16	1-29	2-58	3-31	4-49	5-71						
			4-38	3-17	2-56	1-52	0-37	0-20	1-30	2-58	3-33	4-61	5-74						
			4-18	3-16	2-55	1-51	0-25	0-21	1-30	2-59	3-39	4-74	5-75						
			4-16		2-34	1-51	0-23	0-25	1-31	2-62	3-19	4-75	5-79						
			4-16		2-52	1-47	0-22	0-27	1-31	2-62	3-60	4-81							
			4-16		2-27	1-40	0-13	0-29	1-37	2-62	3-76	4-95							
			4-11		2-23	1-39	0-11	0-32	1-39	2-63	3-77								
			4-03		2-15	1-38	0-08	0-33	1-39	2-65	3-78								
			4-01		2-14	1-35	0-07	0-31	1-40	2-69	3-79								
					2-13	1-32	0-05	0-35	1-47	2-69	3-80								
					2-12	1-27	0-05	0-35	1-51	2-71	3-83								
					2-08	1-26	0-04	0-36 ¹	1-61	2-81	3-84								
					2-06	1-15		0-36	1-63	2-82	3-87								
					2-05	1-14		0-39	1-63	2-83	3-88								
					2-04	1-10		0-39	1-67	2-83	3-96								
						1-06		0-41	1-71	2-84	3-97								
						1-04		0-42	1-76	2-84	3-99								
						1-02		0-56	1-81	2-89									
						1-00		0-57	1-83	2-92									
								0-57	1-83	2-96									
								0-61	1-84	2-97									
								0-73	1-94	2-97									
								0-74	1-94										
								0-77	1-95										
								0-81	1-97										
								0-87	1-98										
								0-89											
								0-93											
								0-99											
Interquartile Range																			
Interquartile Average = 0-45																			
¹ Median = 0-36																			
Common Figure = 0-5																			

II

In Tables II to V, inclusive, are given the Bureau's common figures for recent years for the margins, expenses and profits of several retail and wholesale trades. In each instance there is indicated the number of firms reporting for the particular year. The proportionate size of the sample varies greatly. For instance, the 477 department stores and specialty stores reporting to the Bureau for 1928 presumably represented in sales volume not far

from 20 per cent. of the entire department store and specialty store business of the United States for that year. Also, the 151 automotive equipment wholesalers reporting for 1924 handled from 40 per cent. to 50 per cent. of the total wholesale automotive equipment business of the country for that year. In the case of the retail grocery trade, however, the sales of the 545 firms submitting figures for 1924 represented, of course, only a slight fraction of retail grocery sales for that year.

TABLE II

Common Figures for Department and Specialty Stores reporting to the Bureau for 1928.¹

(Net Sales = 100%.)

	Department Stores.		Specialty Stores.	
	Net Sales less than \$1,000,000.	Net Sales over \$1,000,000.	Net Sales less than \$1,000,000.	Net Sales over \$1,000,000.
Number of Firms .	251	162	36	28
Aggregate Sales .	\$86,520,866	\$1,014,194,467	\$14,779,030	\$156,865,993
Total Salaries and Wages .	16.1%	16.5%	15.5%	16.1%
Rentals .	3.0	3.7	4.8	3.85
Advertising .	2.4	3.2	3.4	3.85
Taxes .	0.7	0.45	0.35	0.4
Interest .	2.7	2.1	2.1	1.8
Supplies .	0.85	1.5	1.0	1.5
Service Purchased .	0.85	0.65	0.85	0.65
Unclassified .	0.8	1.0	0.8	1.05
Travelling .	0.4	0.45	0.7	0.65
Communication .	0.3	0.35	0.4	0.35
Repairs .	0.15	0.25	0.2	0.25
Insurance .	0.5	0.3	0.5	0.4
Depreciation :				
Losses from Bad Debts .	0.3	0.25	0.35	0.35
Other Depreciation .	0.65	0.8	0.7	0.8
Professional Services .	0.1	0.2	0.25	0.3
Total Expense .	29.8%	31.7%	31.9%	32.3%
Gross Margin .	20.6%	33.2%	32.8%	35.3%
Net Profit or Loss .	Loss 0.2%	1.5%	0.9%	3.0%
Total Net Gain :				
Percentage of Net Sales .	2.7%	4.5%	2.8%	5.6%
Percentage of Net Worth .	6.4%	9.7%	8.9%	15.5%
Rate of Stock-turn (times a year) :				
Based on beginning and ending inventories .	2.5	3.9	3.9	5.9
Based on monthly inventories .	2.2	3.3	4.0	4.6

TABLE III
Common Figures for Retail Trades studied by the Bureau.¹
(Net Sales = 100%)

Trade Year.	Shoe. 1923.	Tire. 1923.	Grocery. 1924.	Jewellery. 1927.	Stationery and Office Outfitting. 1928.		
					General Stationery.	Commercial Stationery.	Commercial Stationery and Printing.
Number of Firms	409	83 ²	545	230 ³	146	40	67
Aggregate Sales	\$72,209,000	\$5,735,000	\$8,038,000	\$52,421,474	\$25,277,566	\$0,139,932	\$21,021,436
Total Salaries and Wages	14.7%	12.4%	10.9%	17.8%	15.8%	18.9%	19.5%
Salesmen's Travelling and other Direct Selling	2.2	1.9	0.35	3.4	0.5	0.9	1.1
Advertising	0.2	1.4	1.2	—	1.4	1.3	1.3
Boxes and Wrappings	0.25	1.9	1.2	—	—	—	—
Delivery	0.25	0.5	0.2	—	—	—	—
Office Supplies and Postage	0.4	0.3	0.3	—	1.4	1.35	2.1
Telephone and Telegraph	—	0.3	0.3	—	0.7	0.8	0.8
Rent	3.5	3.7	1.3	—	4.5	3.8	2.7
Heat, Light and Power	0.6	0.7	0.3	5.0	0.6	0.5	0.4
Taxes	0.5	0.3	0.2	0.35	0.5	0.4	0.35
Repairs and Depreciation of Store Equipment	0.6	0.6	0.2	0.8	0.5	0.45	0.4
Total Interest	1.7	1.2	1.1	0.9	2.4	2.2	2.0
Miscellaneous Expense	1.0	1.7	0.8	3.85	1.1	0.9	1.1
Dues, Subscriptions, Contributions to Charity	—	0.8	—	—	0.3	0.2	0.25
Losses from Bad Debts	0.2	—	0.4	0.55	0.3	0.45	0.3
Total Expense	27.4%	25.5%	18.0%	39.6%	33.5%	33.8%	33.3%
Gross Margin	29.1%	25.7%	19.8%	49.9%	34.5%	36.0%	34.9%
Net Profit	1.7%	0.2%	1.8%	1.3%	1.0%	2.4%	1.6%
Total Net Gain	—	—	—	—	—	—	—
Percentage of Net Sales	—	—	—	—	3.7%	4.3%	4.0%
Percentage of Net Worth	—	—	—	—	10.0%	12.5%	8.5%
Stock-turn (times a year)	1.9	4.5	10.0	0.9	2.5	2.8	—

¹ Harvard University, Bureau of Business Research, Bulletin Nos. 43, 48, 52, 76 and 80.

² Exclusive of charges on real estate.

³ Common figure not determined.

⁴ Included in Miscellaneous.

⁵ Merchandise departments only.

TABLE
 Co. *igu for Bi* *ate.* *Dea ers repor g to e Bureau 928 Firms Operating*
'ess than Thre. Yards
 Net Sales =

		Type of Yard.			
		Lumber.	Lumber and Mason Material.	Mason Material.	Lumber and Mason Material and Coal.
Number of Firms		138	61	62	21
Aggregate Sales		\$37,284,916	\$18,927,548	\$24,151,378	\$4,132,774
Wages of Yard and Warehouse Force		3.3%	2.8%	2.5%	3.2%
Total Outward Transportation and Delivery		3.6	3.9	6.0	6.0
Executive Salaries		4.0	3.3	3.3	{ 5.1
Sales-force Salaries, Commissions and Bonuses		2.2	1.3	1.0	1.5
Office Salaries and Wages		1.9	1.9	1.6	1.4
Total Buying, Selling and Administrative Salaries		8.1%	6.5%	6.8%	7.4%
Travelling Expenses		0.35	0.3	0.55	0.15
Advertising		0.45	0.35	0.3	0.5
Office Supplies, Postage and Stationery		0.35	0.3	0.25	0.35
Telephone		0.2	0.2	0.2	0.1
Legal, Collection and other Buying and Administrative		0.25	0.2	0.2	0.15
Heat, Light, Power and Water		1.9	1.8	1.6	1.8
Taxes		0.15	0.1	0.15	0.1
Insurance		0.45	0.45	0.2	0.45
Repairs and Depreciation of Equipment		0.15	0.45	0.3	0.35
Total Interest		0.35	0.4	0.3	0.35
Dues, Subscriptions and Contributions		0.2	0.2	0.2	0.2
Miscellaneous Expense		0.5	0.7	0.15	0.4
Losses from Bad Debts		0.9	1.1	0.75	0.65
Total Expense		25.0%	22.8%	22.7%	25.1%
Gross Margin		25.8%	24.4%	23.2%	26.7%
Net Profit or Loss		0.8%	1.6%	0.5%	1.6%
Total Net Gain :					
Percentage of Net Sales		4.7%	5.9%	2.7%	5.5%
Percentage of Net Worth		8.3%	10.5%	7.8%	6.8%
Stock-turn (times a year)		3.1	3.5	—	3.0

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TABLE V
Common Figures for Wholesale Trades studied by the Bureau.¹
(Net Sales = 100%.)

Trade.	Grocery.	Dry Goods (Southern).	Drugs.	Automotive Equipment.	Paint and Varnish.	Plumbing and Heating (Mid-West).	Wall-paper.
Year.	1923.	1923.	1924.	1924.	1926.	1927.	1927.
Number of Firms	501	71	129	151	62	134	54
Aggregate Sales	\$677,703,150	\$93,105,000	\$201,298,000	\$98,382,000	\$30,219,000	\$106,004,907	\$14,270,362
Total Sales-force Expense ²	2.6%	5.7%	3.7%	8.2%	6.2%	5.0%	7.7%
Sample Book Expense ²	—	0.13	0.15	—	—	0.3	5.0
Advertising	0.06	0.13	0.15	0.25	0.9	0.2	1.0
Office Salaries	1.2	0.8	2.7	1.7	2.1	2.3	3.4
Wages of Buying and Shipping Force	0.05	0.13	0.25	0.2	0.3	0.15	0.4
Warehouse Supplies	0.25	—	0.2	0.35	0.2	0.15	1.0
Outward Freight, Express and Parcel Postage	0.65	0.16	0.35	0.35	0.95	1.05	1.7
Outward Truckage	—	—	—	—	—	—	—
Executive Salaries	1.0	1.8	—	2.1	3.0	2.3	3.8
Office Salaries, Wages and Bonuses	1.0	1.0	—	2.6	1.9	2.7	2.7
Total Executive and Office Salaries	2.0%	2.8%	3.4%	4.7%	4.9%	5.0%	6.5%
Office Supplies, Postage and Stationery	0.2	0.26	0.35	0.7	0.2	0.4	0.7
Telephone and Telegraph	0.27	0.05	0.1	0.25	0.2	0.25	0.3
Legal, Collection and other Buying and Administrative	0.15	0.45	0.2	0.5	0.4	—	0.3
Rent	0.5	0.7	0.75	1.2	1.9	1.6	4.2
Heat, Light and Power	0.08	0.1	0.15	0.2	0.3	0.2	0.45
Taxes	0.3	0.5	0.45	0.35	0.5	0.4	0.3
Insurance	0.15	0.23	0.2	0.3	0.4	0.25	0.55
Repairs and Depreciation of Equipment	0.11	0.14	0.2	0.27	0.3	0.2	0.45
Total Interest	1.5	2.8	1.9	2.0	2.0	2.1	2.2
Losses from Bad Debts	0.4	1.0	0.35	0.7	0.6	0.55	1.1
Miscellaneous Expense	0.2	0.5	0.3	0.6	0.65	0.7	1.05
Total Expense	10.6%	16.6%	15.8%	23.5%	23.6%	20.8%	38.3%
Gross Margin	11.3%	17.6%	17.1%	24.8%	23.3%	20.2%	40.3%
Net Profit or Loss	0.7%	1.0%	1.3%	1.3%	Loss 0.1%	Loss 0.6%	2.0%
Net Gain	—	—	—	—	—	—	—
Percentage of Net Sales	—	—	Common Figures not Determined	—	—	—	—
Percentage of Net Worth	—	—	Common Figures not Determined	—	—	—	—
Stock-turn (times a year)	5.9	3.4	3.8	3.6	3.6	4.0	2.7

¹ Harvard University, Bureau of Business Research, Bulletins Nos. 40, 45, 50, 51, 66, 71 and 73.
² Exclusive of charges on real estate.

* Not separated.
 * Includes catalogue.
 * Included in Miscellaneous.

Certain broad conclusions may be drawn from these tables. In the first place, net profit, in the sense defined by the Bureau, constitutes a relatively small percentage of net sales. This is true even of the retail jewellery trade with its stock-turn rate of less than 1 time annually; in fact the common net profit for retail jewellery stores in 1927 was only 1.3 per cent. of sales as compared with a common figure of 1.8 per cent. of sales for retail grocery stores in 1924, although the typical rate of stock-turn for these stores was 10 times annually. For the trades for which net gain (that is, profit in the sense understood by the man in the street) has been determined, the common figures are not particularly high either as a percentage of net sales or as a percentage of invested capital, the latter figure in 1928 being 10 per cent. for general stationers, 9.7 per cent. for the larger department stores, 6.4 per cent. for smaller department stores, 8.5 per cent. for lumber dealers, and 7.8 per cent. for mason material dealers.

As may be observed from Table V, net profit in the sense of return over and above interest on investment also is relatively small in wholesale trades, the common figures ranging from a net loss of 0.6 per cent. for plumbing and heating supply wholesalers in 1927 to a net profit of 2 per cent. for wall-paper wholesalers in the same year. For the retail trades the highest net profit was that exhibited for the departmentised specialty stores with net sales over \$1,000,000 in 1928. The term "specialty store," it may be explained, is here used in the sense which it has acquired in the department store and dry goods trade in the United States, namely, a store with departmental form of organisation specialising in the sale of women's wearing apparel. For these stores in 1928 net profit commonly was 3 per cent. of net sales, and total net gain was 5.8 per cent. of net sales and 15.5 per cent. of net worth. The poorest profit showing for any retail trade was that made by department stores with sales less than \$1,000,000 in the same year. These stores, as shown in Table II, commonly had a net loss of 0.2 per cent. of net sales and a total net gain of 2.7 per cent. of net sales and 6.4 per cent. of net worth. This set of figures, however, is for the year 1928: conceivably if 1928 figures were available for some of the other retail trades such as retail shoe stores and retail grocery stores, the 1928 results might not compare favourably with those for earlier years, particularly because of the growth of chain store competition in these fields.

Among the wholesale trades, as indicated in Table V, the best profit showing was that made by the wall-paper wholesalers in 1927, and the poorest showing was that of the plumbing and

heating supply wholesalers in the same year. Again, if later figures were available for grocery and dry goods wholesalers, different results might be shown. In the case of wall-paper wholesalers, the higher profit may be accounted for partly by the fact that this trade represents to a certain extent a combination of wholesale and retail functions.

A comparison of the data for retail and wholesale trades indicates that expense ratios for wholesale trades generally are lower than those for the corresponding retail trades; for instance, 18 per cent. of sales for retail grocery stores as compared with 10.6 per cent. for wholesale grocery firms, 29.8 per cent. for the smaller department stores as compared with 16.6 per cent. for the wholesale dry goods trade. Among the wholesale trades for which figures are shown in Table V, expense ratios are noticeably higher for wholesalers of automotive equipment, paint and varnish, plumbing and heating supplies, and wall-paper than for wholesalers of groceries, dry goods and drugs. The reason for this divergence lies in the fact that these two groups of wholesalers perform somewhat different functions. Grocery, dry goods and drug wholesalers carry stocks of goods and sell at wholesale to retailers, who also carry stocks of merchandise and resell to final consumers. In the case of automotive equipment wholesalers and paint and varnish wholesalers, while part of their trade is with retail dealers carrying stocks of goods, a very considerable volume of their business is done through intermediaries of the artisan type, such as automobile repair shops and painters, who buy goods in relatively small quantities as needed for immediate use on particular jobs. This situation is also true of the wholesale plumbing and heating supply businesses, with the added condition that these firms habitually sell some merchandise in carload lots by means of direct shipments from manufacturers to large industrial users. In the case of wall-paper wholesalers the combination of wholesale and retail functions is illustrated most clearly, since these firms find it necessary to maintain elaborate showrooms where final consumers may inspect the merchandise before placing their orders with paper-hangers or interior decorators.

III

The figures in these tables are also of interest for the light which they throw on the spread between the manufacturer's price and the price finally paid by the consumer. In the case of groceries, for instance, these data indicate that out of the consumer's dollar

spent at retail over the counter the retail grocer takes 19·8 cents, 18 cents of which goes to pay his costs of operation, including his own salary and a reasonable return on his investment. There is thus left 80·2 cents which the retail grocer pays presumably to the wholesale grocer for these goods. This sum of 80·2 cents is, of course, the 100 per cent. on which the wholesaler's expenses and profits are calculated. Of this sum the wholesale grocer, as the figures in Table V indicate, takes out 11·3 per cent., or 9·1 cents, of which 10·6 per cent., or 8·5 cents, is required to meet his costs of operation, including remuneration for his managerial services and a fair return on his investment. Thus there is left approximately 71·1 cents which the manufacturer receives for the dollar's worth of merchandise purchased by the consumer.

At this juncture it may be permissible to go outside the scope of this paper briefly for the purpose of introducing some fragmentary evidence as to what part of this sum is required to meet the manufacturer's marketing costs. Table VI presents tentative common figures for the marketing expenses of grocery manufacturers reporting to the Harvard Bureau of Business Research for 1927. The number of firms reporting in this study was comparatively small, and the variation in types of product and methods of selling was extreme. Additional data, in fact, for a larger group of grocery manufacturers reporting for the year 1928¹ indicated that the attempt to establish common figures for 1927 had been premature. The figures in Table VI, therefore, are not entitled to the same weight as the data for wholesale and retail trades in the tables previously presented. They do, nevertheless, indicate that for certain types of merchandise commonly handled by wholesale and retail grocers, manufacturers and packers may incur marketing expenses amounting to a fairly substantial percentage of sales. One of the middle figures shown in Table VI is that of 17·5 per cent. of sales for the marketing expense of packers of coffee, tea, chocolate, extracts and spices. To sketch a rather crude and hazy picture of distribution costs, overlooking all the elements of joint cost involved, suppose that this 17·5 per cent. is applied to the figure of 71·1 cents, arrived at previously as the sum received by the manufacturer from the wholesaler; this gives an additional marketing cost of 12·44 cents, leaving the manufacturer's cost of production, including overhead and profit, at 58·66 cents for goods costing the consumer \$1. Disregarding the fact that these figures do not all apply to the same year, we

¹ See Bulletin No. 79, Marketing Expenses of Grocery Manufacturers for 1927 and 1928.

TABLE VI
Marketing Expenses of Grocery Manufacturers reporting to the Bureau for 1927.¹
(Net Sales = 100%.)

	Product Groups.					
	I. Flour.	II. Meat- packers.	III. Canned and Bottled Foods.	IV. Coffee, Tea, Chocolate, Essences, Salt and Spices.	V. Cereals, Crackers, Macaroni, Salt and Preserves.	VI. Soaps, Cleansers, Polishes and Dis- infectants.
Number of Firms	7	9	13	15	14	11
Aggregate Sales	\$54,160,227	\$331,240,491	\$40,009,555	\$18,417,505	\$230,034,343	\$7,613,642
Sales-force and Brokerage ² :						
Total Sales-force	1.9%	2.0%	3.75%	7.0%	6.5%	7.0%
Brokerage	0.6	0.5	1.75	0.5	2.0	2.0
Total Sales-force and Brokerage	2.5%	2.5%	5.5%	7.5%	8.5%	9.0%
Sales Promotion and Advertising :						
Field Promotion	0.1%	Data	0.5%	1.0%	1.7%	2.5%
Space Advertising	0.25	Insufficient	1.5	1.5	4.0	7.0
Other Sales Promotion and Advertising ³	0.05		0.3	0.7	0.8	3.5
Total Sales Promotion and Advertising (except Administration)	0.4%	0.1%	2.3%	3.2%	6.5%	13.0%
Shipping, Transportation, Warehousing and Delivery :						
Shipping	0.5%	0.75%	1.5%	0.75%	0.8%	1.1%
Transportation	— ³	2.3	3.5	1.5	6.0	6.0
Direct Warehousing, Local Delivery, and General Outward Traffic and Stock Control	0.6	0.25	1.0	0.75	1.7	0.9
Total Shipping, Transportation, Warehousing and Delivery	1.1%	3.3%	6.0%	3.0%	8.5%	8.0%
Credit and Collection :						
General Credit and Collection Expense	0.05%	0.02%	0.05%	0.02%	0.05%	0.05%
Losses from Bad Debts	0.2	0.08	0.15	0.25	0.15	0.15
Total Credit and Collection (except Administration)	0.25%	0.1%	0.2%	0.3%	0.2%	0.2%
Marketing Administration :						
Salaries and Wages	0.8%	0.7%	2.0%	2.5%	2.0%	5.3%
Office Expense	0.35	0.2	0.8	0.75	1.0	1.5
Travelling and Other Marketing Administration	0.1	0.1	0.2	0.25	0.2	0.2
Total Marketing Administration	1.25%	1.0%	3.0%	3.5%	3.2%	7.0%
Total Marketing Expense	5.5% ³	7.0%	17.0%	17.5%	26.9%	37.2%

¹ Harvard University, Bureau of Business Research, Bulletin No. 77.

² Includes Free Deals, Direct Mail Advertising, Premium Advertising, and Miscellaneous Sales Promotion and Advertising—Home Office.

³ Transportation not included.

thus arrive at an approximate estimate of about 42 cents as the distribution cost through certain marketing channels of goods for which the consumer ultimately paid \$1. Of this rough figure of 42 cents it is to be noted that less than 2.5 cents constituted a pure profit to the distributors over and above compensation for managerial services and return on investment.

IV

To return to the consideration of retail margins, expenses and profits, Tables VII, VIII, and IX indicate trends in recent years in department stores and jewellery stores, the two retail trades in which the Harvard Bureau of Business Research has carried on its studies over the longest periods of time. While these figures were not for a completely identical group of firms reporting for the entire period, from year to year the proportion of repeat reports was substantially high.

Table VII, for department stores with sales over \$1,000,000, and Table VIII, for department stores with sales under \$1,000,000, indicate that over the period from 1922 to 1928 there was a tendency for the gross margin to increase slightly in ratio to sales and that at the same time there was a tendency for the rate of total expense, as well as for the rates of practically all the constituent items of expense, to increase more rapidly than did the gross margin. As a result, the rate of net profit (in the sense of return over and above interest on investment) for each group of department stores tended to decline after 1923. This tendency is rather startling in view of the noteworthy prosperity enjoyed by business in the United States over the period from 1923 through 1928, with the exception of the brief recession in 1924. By no means are all the causes for this condition of declining profits in the department store field as yet apparent, but there can be little doubt that department stores over this period were adversely affected by the competition of specialty stores in certain types of merchandise and by the competition of chain stores in certain other types.

As indicated in Table IX, retail jewellery stores had their rates of gross margin adversely affected by the business depression in 1921, but after 1923 were able to bring this ratio back to the point where it had been for 1919 and 1920. In their total expense ratios there was an astonishing jump from a common figure of 32.7 per cent. in the prosperous year 1920 to a common figure of 43.5 per cent. in the depression year 1921. These figures show

TABLE VII

*Operating Results of Department Stores with Sales over \$1,000,000 :
1922-1928.¹*

(Net Sales = 100%.)

	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Number of Firms .	151	163	168	183	163	180	162
Gross Margin .	32.0%	32.0%	32.1%	32.2%	32.6%	33.1%	33.2%
Salaries and Wages.	15.4%	15.4%	16.2%	16.0%	16.1%	16.4%	16.5%
Rent .	2.9	2.8	3.0	3.0	3.2	3.4	3.7
Advertising .	2.9	2.9	3.2	3.1	3.1	3.3	3.2
Interest .	2.1	1.8	1.9	1.9	2.0	2.1	2.1
Other Expenses .	5.3	5.5	5.8	5.9	5.9	6.2	6.2
Total Expense .	28.6%	28.4%	30.1%	29.9%	30.3%	31.4%	31.7%
Net Profit .	3.4%	3.6%	2.0%	2.3%	2.3%	1.7%	1.5%
Net Gain :							
Percentage of Net Sales .	— ²	— ²	— ²	— ²	— ²	4.4%	4.5%
Percentage of Net Worth .	— ²	— ²	— ²	— ²	— ²	10.5%	9.7%

¹ Harvard University, Bureau of Business Research, Bulletins Nos. 37, 44, 53, 57, 63, 74 and 78.

² Common figure not determined.

TABLE VIII

*Operating Results of Department Stores with Sales under \$1,000,000 :
1922-1928.¹*

(Net Sales = 100%.)

	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Number of Firms .	340	403	399	398	284	328	251
Gross Margin .	27.8%	28.2%	28.5%	28.6%	28.9%	29.7%	29.6%
Salaries and Wages.	14.9%	14.2%	15.3%	15.2%	15.5%	15.9%	16.1%
Rent .	2.3	2.3	2.3	2.5	2.7	2.8	3.0
Advertising .	2.1	2.0	2.2	2.2	2.3	2.3	2.4
Interest .	2.6	2.5	2.6	2.5	2.6	2.7	2.7
Other Expense .	5.2	5.3	5.8	5.7	5.6	5.8	5.6
Total Expense .	27.1%	26.3%	28.2%	28.1%	28.7%	29.5%	29.8%
Net Profit or Loss	0.7%	1.9%	0.3%	0.5%	0.2%	0.2%	Loss 0.2%
Net Gain :							
Percentage of Net Sales .	— ²	— ²	— ²	— ²	— ²	3.3%	2.7%
Percentage of Net Worth .	— ²	— ²	— ²	— ²	— ²	7.2%	6.4%

¹ Harvard University, Bureau of Business Research, Bulletins Nos. 37, 44, 53, 57, 63, 74 and 78.

² Common figure not determined.

clearly what happens to the expense ratio of a retail business during a period when sales volume is adversely affected by price declines. Following 1921 the retail jewellery trade gradually brought its expense ratio down to a common figure of 36.4 per cent. in 1923; but thereafter, in common apparently with the department store trade, the retail jewellery business experienced

TABLE IX

Operating Results of Retail Jewellery Stores : 1919-1927.¹

(Net Sales = 100%.)

	1919. ²	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
Number of Firms .	100	182	190	171	290	254	172	211	230
Gross Margin	40.1%	39.1%	36.9%	38.6%	38.3%	39.5%	39.6%	40.9%	40.9%
Salaries and Wages .	8.5%	9.8%	12.8%	17.3%	17.1%	17.7%	17.4%	17.1%	17.8%
Rent .	4.0	3.9	5.4	4.8	4.5	4.8	4.8	4.9	5.0
Advertising .	2.0	2.0	2.5	3.1	2.8	3.1	3.4	3.5	3.4
Interest .	4.6	5.1	7.0	5.9	4.6	4.9	4.6	4.5	5.5
Other Expense .	13.2	11.9	15.8	8.9	7.4	7.8	7.3	7.8	7.9
Total Expense .	32.3%	32.7%	43.5%	40.0%	36.4%	38.3%	37.5%	37.8%	39.6%
Net Profit or Loss .	7.6%	6.4%	Loss 6.6%	Loss 1.4%	1.9%	1.2%	2.1%	3.1%	1.3%
Net Gain : Percentage of Total Receipts .	— ³	— ³	— ³	— ³	— ³	— ³	— ³	— ³	6.6%
Percentage of Net Worth .	— ³	— ³	— ³	— ³	— ³	— ³	— ³	— ³	8.4%

¹ Harvard University, Bureau of Business Research, Bulletins Nos. 23, 27, 32, 38, 47, 54, 58, 65 and 76.

² Because of the statistical methods used in 1919, the figures for that year do not tie.

³ Common figures not determined.

a gradual rise in the cost of doing business. The net profit figures shown in Table IX also indicate clearly the somewhat inflated profits of 1919 and 1920, followed by the sharp losses in 1921, and the gradual recovery in subsequent years to something approaching equilibrium. The effects of the cyclical movement of general business conditions no doubt were accentuated by the luxury character of the retail jewellery trade.

Perhaps the most significant question raised by the data in these tables relates to the rising tendency of the total expense ratio. Although the evidence presented is fragmentary at best, it is corroborated not only by data which the Bureau has obtained for other retail trades at intervals from 1914 to 1929, but also by the general experience of numerous business firms over the same period. Nor does it appear that to any extent these higher costs of distribution represent merely a shifting of functions from one sector of the marketing sphere to another, as, for instance, a rise in the retail cost of doing business being offset by a decrease in manufacturers' selling expense. Rather, the costs of distribution appear to have increased all along the line, at least in the sense that they require an increasing percentage of the consumer's dollar.

As regards the significance of this apparent rise in the cost of distribution, perhaps a digression may be permitted at this point to indicate that there are two schools of thought. The common attitude has been to deplore the increased costs of distribution and to attribute them to competitive waste, inefficiency, lack of foresight and general ignorance of marketing principles. The other point of view, which has gained some adherents in recent years, is that rising costs of distribution are an inevitable concomitant of the development of a machine civilisation. The cobbler making shoes by hand in his tiny shop 150 years ago had practically no recognisable marketing costs; but the great shoe factory of to-day finds that each increase in output, though it may reduce the cost of production, necessitates either the development of wider markets or the more intensive cultivation of existing markets, in either case with a resulting increase in marketing costs. Under these conditions, every saving in the cost of production from the development of new machines or new methods apparently is in a fair way to be offset, in part at least, by the increased cost of marketing. This school of thought also points out that the rising standards of living, the increasing requirements of consumers for all kinds of "services," and the varied phenomena of fashion change, all of which indubitably play their part in increasing distribution costs, are inextricably interwoven with the fabric of our machine civilisation.

The major difference between these two schools of thought is that the first regards increasing distribution costs as a hydra-headed monster, to be attacked and subdued at every point by every possible method; whereas the second would recognise a law of rising distribution costs, to be intelligently understood and

guided. Without indicating a preference for either point of view it may be fair to say that there has as yet been little opportunity for conclusively testing the notion that increasing costs of distribution are an inherent part of the industrial progress of Western civilisation. Distribution is still largely a matter of man power, whereas advances in productive efficiency have been achieved largely through the application of machine power. For the present, therefore, distributive enterprises tend to absorb the services of a larger and larger proportion of the total number of persons gainfully employed, simply because the worker's energy in this field is not multiplied by the power of the machine as it is in the field of production. So long as the scientific development of marketing processes thus lags behind the technique of the factory, marketing costs will increase relative to production costs. Imagination at the moment is not adequate to the task of visualising how machinery and machine methods might generally be applied to the task of distribution; conceivably the sales promotion efforts of the future will take to the air by radio and television. But if the machine approach to the problem of distribution should in the future prove in any respects feasible, we shall be in for some startling changes; and there will be an opportunity for a real test of the theory that distribution costs inevitably require a larger and larger portion of the consumer's dollar.

V

There is a widespread belief that large retail establishments are able to effect notable economies in operating costs as compared with small retailers. To test the validity of this assumption, it has been the practice of the Harvard Bureau in most of its studies in recent years to group the reporting firms according to their volume of sales and to determine for each of these groups common figures for gross margin, total expense and net profit. In Table X are shown typical figures resulting from several such groupings for various retail trades in recent years. Although the results are shown for only one year for each trade, it may be stated that the tendencies exhibited by these figures are confirmed by similar groupings which the Bureau has made for other years in the same trades.

The department stores reporting for 1928 are ranged in groups with sales volume running from less than \$250,000 to over \$10,000,000 annually. This grouping brings out clearly the tendency for gross margin to be higher for the firms with larger

TABLE X
Operating Results of Retail Businesses according to Volume of Sales.¹
 (Net Sales = 100%.)

		Department Stores: 1928.									
		Less than \$250,000	\$250,000- \$499,000	\$500,000- \$999,000	\$1,000,000- \$1,999,000	\$2,000,000- \$3,999,000	\$4,000,000- \$9,999,000	\$10,000,000 or over			
Sales Volume	25	40	25
Number of Firms	.	121	60	61	55	42	40	25	25	40	25
Gross Margin	.	28.1%	30.4%	31.7%	31.7%	33.1%	34.3%	34.3%	34.3%	34.3%	34.3%
Salaries and Wages	.	15.8%	16.0%	16.6%	16.3%	16.5%	16.7%	16.8%	16.8%	16.7%	16.8%
Rent	.	2.7	3.0	3.5	3.3	3.9	3.7	3.7%	3.7%	3.7	3.7%
Advertising	.	2.2	2.45	2.9	2.95	3.25	3.4	3.35	3.35	3.4	3.35
Interest	.	2.9	2.6	2.6	2.1	2.1	2.1	1.7	1.7	2.1	1.7
Other Expense	.	5.1	5.65	6.4	6.05	6.25	6.75	5.9	5.9	6.75	5.9
Total Expense	.	28.7%	29.7%	32.0%	30.8%	32.0%	32.7%	31.5%	31.5%	32.7%	31.5%
Net Profit or Loss	.	Loss 0.6%	0.7%	Loss 0.3%	0.9%	1.1%	1.6%	2.8%	2.8%	1.6%	2.8%
Net Gain:											
Percentage of Net Sales	.	2.3%	3.4%	2.8%	3.8%	4.5%	4.8%	5.8%	5.8%	4.8%	5.8%
Percentage of Net Worth	.	5.0%	7.8%	7.8%	9.7%	9.2%	9.8%	12.1%	12.1%	9.8%	12.1%
		Lumber Dealers: 1928.									
		Less than \$100,000	\$100,000- \$199,000	\$200,000- \$399,000	\$400,000 or over	Less than \$100,000	\$100,000- \$299,000	\$300,000 or over			
Sales Volume	23	46	23
Number of Firms	.	32	44	35	27	77	46	23	23	46	23
Gross Margin	.	27.5%	25.3%	25.2%	25.0%	34.0%	33.8%	34.5%	34.5%	33.8%	34.5%
Salaries and Wages	.	13.7%	10.7%	10.8%	11.3%	18.7%	17.5%	18.8%	18.8%	17.5%	18.8%
Rent	.	2.2	1.9	1.8	1.4	5.0	4.4	3.8	3.8	4.4	3.8
Advertising	.	0.75	0.75	0.65	0.6	2.2	1.6	1.6	1.6	2.2	1.6
Interest	.	3.4	3.3	3.3	2.9	2.6	2.1	2.3	2.3	2.1	2.3
Other Expense	.	7.95	7.65	7.65	7.3	6.8	7.0	7.0	7.0	6.8	7.0
Total Expense	.	23.0%	24.3%	24.2%	23.5%	34.3%	32.3%	33.5%	33.5%	32.3%	33.5%
Net Profit or Loss	.	Loss 0.5%	1.0%	1.0%	1.5%	0.6%	1.5%	1.0%	1.0%	1.5%	1.0%
Net Gain:											
Percentage of Net Sales	.	4.0%	5.0%	4.7%	4.9%	3.8%	3.8%	3.6%	3.6%	3.8%	3.6%
Percentage of Net Worth	.	7.8%	9.0%	7.6%	10.0%	9.5%	11.5%	8.8%	8.8%	11.5%	8.8%

MARGINS OF RETAILERS ¹									
Sales Volume	\$100,000- \$199,000	\$500,000 or over
Number of Firms	53	19
Gross Margin	40-8%	41-4%
Salaries and Wages	17-3%	17-1%
Rent	4-9%	4-2%
Advertising	4-3%	3-9%
Interest	4-7%	4-3%
Other Expense	7-9%	8-7%
Total Expense	38-9%	38-2%
Net Profit or Loss	1-9%	3-2%
Net Gain : Percentage of Total Receipts	5-1%	7-1%
Percentage of Net Worth	8-5%	11-5%
Retail Grocery Stores : 1924.									
Sales Volume	\$100,000- \$149,000	\$150,000- \$249,000
Number of Firms	72	59
Gross Margin	20-6%	20-9%
Salaries and Wages	11-0%	11-0%
Rent	0-15	1-0%
Advertising	1-1	0-5
Interest	1-1	1-1
Other Expense	4-35	4-7
Total Expense	18-0%	18-2%
Net Profit	2-6%	2-7%
Net Profit :	1-7%	1-7%
Percentage of Total Receipts	5-1%	7-1%
Percentage of Net Worth	8-5%	11-5%
Retail Shoe Stores : 1923.									
Sales Volume	\$100,000- \$199,000	\$250,000 or over
Number of Firms	101	56
Gross Margin	30-6%	34-8%
Salaries and Wages	15-1%	16-6%
Rent	3-3	3-8
Advertising	2-2	3-8
Interest	2-2	1-9
Other Expense	4-1	6-7
Total Expense	27-5%	32-0%
Net Profit or Loss	3-1%	2-8%

¹ See Harvard University, Bureau of Business Research, Bulletins Nos. 78, 81, 80, 76, 52 and 43.

sales volume. At the same time, the total expense ratio tended to be somewhat irregularly higher for the larger firms. In any event, there is here no evidence of marked economies on the part of the concerns with relatively large sales volume. The largest stores, however, were the ones achieving the best profit-showings, by reason of their higher gross margins, the common net gain of the department stores with sales of \$10,000,000 or over in 1928 being 12.1 per cent. of net worth against a corresponding figure of 5 per cent. of net worth for those with sales less than \$250,000.

Among the retail shoe stores reporting for 1923 both the gross margin and the total expense ratios were distinctly higher for the larger concerns, and again it was these concerns which on the whole made the best profits. Retail jewellery stores reporting for 1927 showed relatively little variation in gross margin when grouped according to volume of sales. This tendency towards some uniformity in percentage of gross margin presumably may be attributed in part to efforts at resale price maintenance in this field and in part to customs in the trade, which apparently favour more or less uniform mark-ups. At the same time, variations in the total expense ratio for jewellery stores grouped according to sales volume were comparatively slight. Consequently it appears to be more or less accidental that the concerns with sales over \$500,000 were those which had the best profits.

The grouping of retail grocery stores reporting for 1924 according to amounts of annual sales volume reflected substantially no variation in gross margin, presumably for some of the same reasons as in the case of the jewellery trade. It is perhaps significant, however, that the common figure for total expense was highest for the stores with sales less than \$30,000 a year and that the next to the lowest common figure for total expense appeared for the concerns with sales over \$250,000. Even so, however, the variation was comparatively small; and again it is probably accidental that the best profit-showing was made by the firms with sales between \$150,000 and \$249,000.

The differences both in gross margin and in total expense among the general stationers when grouped according to volume of sales for 1928 were mostly negligible. Among the lumber dealers reporting for 1928, both gross margin and total expense were highest for the concerns with sales less than \$100,000 and lowest for the concerns with sales over \$400,000. The differences in total expense ratios were greater than the differences in gross margins, however; consequently, the firms with the largest sales volume were those which made the best profit-showing. Here it

seems probable that some weight should be attached to the fact that lumber dealers are not retailers in the same sense as retail grocers or retail shoe merchants. Rather, their business is, to a very considerable extent, industrial in character, in that they frequently sell in the first instance to contractors or artisans rather than to final consumers. The lower total expense ratios for the larger firms in this field are possibly therefore comparable in some respects to the lower expense ratios which the Bureau frequently has found to obtain for larger concerns in the field of wholesale business. But, whatever the reasons, the retail lumber trade affords practically the only instance in the Bureau's experience where any substantially lower costs of doing business appear to be enjoyed by the larger concerns.

By and large, therefore, on the basis of the evidence shown in Table X, which is fairly typical of the Bureau's findings for other years in the same trades, there is little justification for the idea that large-scale retail firms ordinarily operate with distinctly lower costs than firms with small sales volume. Nevertheless, it is the larger rather than the smaller firms which for the most part achieve the best profits.

VI

Closely related to the comparative results of large and small retail concerns is the question of the influence exerted on operating ratios by an increase or decrease in sales volume in any one year. In Table XI are given some typical figures resulting from the grouping of large and small department stores, retail lumber dealers, general stationers and retail jewellery stores according to the percentage of increase or decrease in sales over the preceding year's sales. Again, the trends shown are substantially similar to those which the Bureau has determined for corresponding groupings in these same trades for other years. The rate of gross margin in general shows little variation in relation to increase or decrease in sales volume except in the case of retail lumber dealers, where the gross margin was noticeably lower for firms achieving an increase of 5 per cent. or more over the previous year. This result suggests that competitive conditions in the retail lumber trade were such in that year that sales increases had to be achieved primarily by price reductions. With respect to total expense, in every instance this was lower for the firms obtaining an increase in sales volume, and in all cases these were the firms which made the best profits.

These findings are distinctly in accordance with common-sense

TABLE XI
Operating Results of Retail Businesses according to Sales Increase or Decrease.¹
(Net Sales = 100.0%)

	Department Stores with Sales over \$1,000,000: 1928.				Department Stores with Sales under \$1,000,000: 1928.			
	Decrease 2.5% or over.	Increase less than 2.5%.	Decrease or Increase	Increase 2.5% or over.	Decrease 2.5% or over.	Increase less than 2.5%.	Decrease or Increase	Increase 2.5% or over.
Number of Firms	43	56		54	93	59		68
Gross Margin	32.6%	33.5%		33.4%	29.9%	29.2%		29.7%
Salaries and Wages	16.7%	16.8%		16.3%	16.7%	15.6%		15.6%
Rent	4.0	3.6		3.45	3.1	2.8		2.9
Advertising	3.45	3.2		3.0	2.5	2.3		2.5
Interest	2.25	2.05		1.95	2.9	2.6		2.4
Other Expense	6.6	6.15		6.0	5.8	5.4		5.1
Total Expense	33.0%	31.8%		30.7%	31.0%	28.7%		28.5%
Net Profit or Loss	Loss 0.4%	1.7%		2.7%	Loss 1.1%	0.5%		1.2%
Net Gain:								
Percentage of Net Sales	3.0%	4.8%		5.4%	1.9%	3.3%		3.8%
Percentage of Net Worth	6.2%	9.9%		12.8%	4.3%	8.4%		8.9%

General Stationers: 1928.

	Lumber Dealers: 1928.		General Stationers: 1928.	
	Decrease 15% or over.	Increase or Decrease less than 5%.	Decrease 2.5% or over.	Increase 2.5% or over.
Number of Firms	26	21	29	35
Gross Margin	27.9%	24.6%	34.5%	34.8%
Salaries and Wages	12.6%	10.0%	19.0%	17.9%
Rent	2.0	1.5	5.4	4.4
Advertising	0.7	0.6	1.2	1.5
Interest	3.6	3.7	2.7	2.2
Other Expense	8.5	8.1	6.9	6.55
Total Expense	27.4%	24.1%	35.2%	33.2%
Net Profit or Loss	0.5%	0.5%	Loss 0.7%	1.6%
Net Gain: Percentage of Net Sales	5.3%	4.5%	3.3%	4.3%
Percentage of Net Worth	7.2%	7.0%	6.8%	13.2%

Retail Jewellery Stores: 1927.

	Retail Jewellery Stores: 1927.		General Stationers: 1928.	
	Decrease 10% or over.	Increase less than 10%.	Decrease 2.5% or over.	Increase 2.5% or over.
Number of Firms	43	31	24	31
Gross Margin	40.5%	39.9%	38.8%	23.5%
Salaries and Wages	19.2%	16.9%	15.5%	9.9%
Rent	6.0	4.3	4.0	1.5%
Advertising	3.2	4.0	2.7	0.5
Interest	5.7	4.7	4.8	2.8
Other Expense	9.4	9.8	7.9	7.3
Total Expense	43.5%	39.7%	38.5%	22.0%
Net Profit or Loss	Loss 3.0%	1.9%	3.9%	1.5%
Net Gain: Percentage of Total Receipts	3.5%	6.5%	6.6%	4.6%
Percentage of Net Worth	4.5%	8.8%	9.4%	11.5%

¹ See Harvard University, Bureau of Business Research, Bulletins Nos. 78, 81, 80 and 76.

expectations; but they immediately raise a question of consistency with the results of the tabulations shown in Table X. If concerns achieving sales increases over the preceding year ordinarily enjoy lower expense ratios, why do not the larger concerns in general have lower expense ratios than the smaller concerns? The answer to this question is by no means clear. A plausible surmise, however, is as follows:—In any one year a majority of the concerns obtaining an increase in sales volume do not find it necessary to expand their plant facilities or their organisations; consequently, in that year those firms enjoy lower expense ratios. If sales continue to increase, however, these firms eventually find it necessary to expand their plant facilities and organisations in order to take care of the additional volume of business. In the years when such expansion takes place the expense ratio leaps ahead. Particularly is this true if in such a year sales volume fails to live up to optimistic estimates of increase. In this way expense ratios, as firms grow larger, periodically establish themselves on slightly higher levels, with the result that in general the larger firms do not enjoy economies in comparison with the smaller establishments. In any one year, however, the number of firms which achieve sales increases without the necessity for expanding their facilities is considerably greater than those that find themselves faced with the apparent necessity of expansion; consequently, the results of the former group overshadow those of the latter group.

VII

Another index which the Bureau has found distinctly useful is that afforded by the rate of stock-turn. As previously explained, the rate of stock-turn represents the number of times annually which the average stock is sold and replaced, and is determined ordinarily by dividing the cost of merchandise sold by the average inventory at cost. In Table XII are shown some typical figures for retail firms grouped according to their rates of stock-turn. In the case of department stores, shoe stores and grocery stores the rates of gross margin exhibit little or no variation for firms grouped according to their rates of stock-turn. For general stationers, retail jewellers and retail lumber dealers gross margin was somewhat lower for the firms with the most rapid rates of stock-turn.

The relationship of stock-turn to the total expense ratio, however, is quite clear. In all instances the groups of concerns turning their stock with the greatest rapidity enjoyed the lowest

expense ratios. In the case of retail jewellers and general stationers the differences in the cost of doing business between the high stock-turn and the low stock-turn firms were quite marked; in department stores and grocery stores it was not so great. In each trade, however, the most favourable profits clearly were obtained by the firms achieving the highest stock-turn rates.

In general, these data, which are typical of those which the Bureau has in its files for other years and other trades, indicate strongly that rapidity of stock-turn is a more reliable index of operating efficiency than is volume of sales. The rate of stock-turn, it must be observed, is not entirely unrelated to the volume of sales. Where a varied assortment of merchandise with respect to size, style, colour, price and so on is necessary to permit suitable selection by consumers, the concerns with large sales volume find it possible to achieve greater rapidity of stock-turn than can be obtained by small-scale retail establishments. But this is only part of the picture. For the most part, differences in the rate of stock-turn between firms in the same line of business reflect differences in managerial capacity. A relatively rapid stock-turn rate is primarily an indication of good merchandising and careful adjustment of purchase and stocks to planned sales. The necessary abilities and mechanisms to achieve such results, of course, are more commonly found in the larger retail establishments; but the rate of stock-turn is nevertheless an excellent index of the effectiveness with which any retail business is managed.

VIII

In Table XIII are shown operating ratios for large and small department stores, retail jewellery stores, retail grocery stores, retail lumber dealers, and general stationers grouped according to the population of the cities in which they were located. It is not possible from this comparison to draw any clear-cut conclusions as to the influence exerted on operating ratios by the factor of size of city, inasmuch as the larger concerns ordinarily are situated in the larger centres of population. As shown by the data in this table, variations in gross margin, total expense and net profit for department stores, jewellery stores and grocery stores grouped according to size of city were, for the most part, comparatively small and irregular in character. In comparing these figures with those in Table X for concerns grouped according to volume of sales, no grounds are found for concluding that size of city, unrelated to volume of sales, is an important factor. In the case

TABLE XII
Operating Results of Retail Businesses according to Rate of Stock-turn.¹
(Net Sales = 100%.)

	Department Stores with Sales under \$1,000,000.: 1928.			Department Stores with Sales over \$1,000,000.: 1928.		
	Less than 2 times	2-2.9 times	3 times or over	Less than 3 times	3-3.9 times	4 times or over
Stock-turn . . . . .	.	.	.	.	.	.
Number of Firms	65	109	76	31	60	71
Gross Margin	29.7%	30.0%	29.0%	33.3%	32.6%	33.8%
Salaries and Wages	16.6%	16.2%	15.4%	17.1%	16.3%	16.4%
Rent	3.1	3.0	2.8	3.6	3.8	3.55
Advertising	2.3	2.5	2.4	3.15	3.15	3.3
Interest	3.4	2.8	2.0	2.4	2.25	1.75
Other Expense	5.0	5.8	5.4	6.35	6.3	6.2
Total Expense	31.0%	30.3%	28.0%	32.6%	31.8%	31.2%
Net Profit or Loss	Loss 1.3%	Loss 0.3%	1.0%	0.7%	0.8%	2.4%
Net Gain : Percentage of Net Sales	2.1%	2.0%	3.4%	3.7%	3.9%	5.4%
Percentage of Net Worth	3.3%	6.4%	9.1%	7.0%	8.4%	11.0%
General Stationers : 1928.						
Stock-turn . . . . .	.	.	.	.	.	.
Number of Firms	30	35	46	45	55	
Gross Margin	27.6%	25.5%	37.1%	34.2%	32.7%	
Salaries and Wages	12.8%	11.2%	19.3%	18.0%	17.5%	
Rent	2.3	1.7	5.5	5.2	3.2	
Advertising	0.6	0.6	1.6	1.4	1.3	
Interest	3.7	2.5	3.3	2.2	1.8	
Other Expense	7.8	8.1	7.7	6.4	6.8	
Total Expense	27.2%	24.1%	37.4%	33.2%	30.6%	
Net Profit or Loss	0.4%	1.4%	Loss 0.3%	1.0%	2.1%	
Net Gain : Percentage of Net Sales	5.4%	4.5%	3.3%	3.5%	4.2%	
Percentage of Net Worth	7.7%	13.8%	6.2%	8.8%	14.1%	
Lumber Dealers : 1928.						
Stock-turn . . . . .	.	.	.	.	.	.
Number of Firms	30	35	46	45	55	
Gross Margin	27.6%	25.5%	37.1%	34.2%	32.7%	
Salaries and Wages	12.8%	11.2%	19.3%	18.0%	17.5%	
Rent	2.3	1.7	5.5	5.2	3.2	
Advertising	0.6	0.6	1.6	1.4	1.3	
Interest	3.7	2.5	3.3	2.2	1.8	
Other Expense	7.8	8.1	7.7	6.4	6.8	
Total Expense	27.2%	24.1%	37.4%	33.2%	30.6%	
Net Profit or Loss	0.4%	1.4%	Loss 0.3%	1.0%	2.1%	
Net Gain : Percentage of Net Sales	5.4%	4.5%	3.3%	3.5%	4.2%	
Percentage of Net Worth	7.7%	13.8%	6.2%	8.8%	14.1%	

			<i>Retail Jewellery Stores : 1927.</i>			<i>Retail Grocery Stores : 1924.</i>		
			Less than 0-8 times	0-8-1-1 times	1-2 times or over	Less than 7 times	7-11-9 times	12 times or over
Stock-turn . . . . .	.	.	.	.	.	.	.	.
Number of Firms . . . . .	.	.	83	96	51	125	219	193
Gross Margin . . . . .	.	.	42-3%	40-5%	39-4%	20-3%	19-6%	19-7%
Salaries and Wages . . . . .	.	.	18-4%	17-5%	17-3%	11-5%	10-6%	10-9%
Rent . . . . .	.	.	5-5	5-0	4-4	1-6	1-3	1-2
Advertising . . . . .	.	.	3-5	3-5	3-2	0-4	0-35	0-3
Interest . . . . .	.	.	6-7	5-5	3-5	1-6	1-1	0-8
Other Expense . . . . .	.	.	8-4	7-6	7-5	4-6	4-25	4-2
Total Expense . . . . .	.	.	42-5%	39-1%	35-9%	19-7%	17-6%	17-4%
Net Profit or Loss . . . . .	.	.	Loss 0-2%	1-4%	3-5%	0-6%	2-0%	2-3%
Net Gain :						Common figures not determined.		
Percentage of Total Receipts . . . . .	.	.	5-0%	6-9%	8-5%	Common figures not determined.		
Percentage of Net Worth . . . . .	.	.	4-5%	9-1%	13-5%	Common figures not determined.		
			<i>Retail Shoe Stores : 1923.</i>					
			Less than 1-4 times	1-4-1-7 times	1-8-2-1 times	2-2 times or over		
Stock-turn . . . . .	.	.	.	.	.	.	.	.
Number of Firms . . . . .	.	.	98	107	98	183		
Gross Margin . . . . .	.	.	28-5%	28-9%	28-8%	29-7%		
Salaries and Wages . . . . .	.	.	16-2%	15-2%	14-1%	13-9%		
Rent . . . . .	.	.	3-5	3-9	3-2	3-4		
Advertising . . . . .	.	.	2-1	2-2	2-1	2-3		
Interest . . . . .	.	.	4-3	3-1	2-4	1-8		
Other Expense . . . . .	.	.	4-5	4-5	4-1	4-3		
Total Expense . . . . .	.	.	30-6%	28-9%	25-9%	25-7%		
Net Profit or Loss . . . . .	.	.	Loss 2-1%	0-0%	2-9%	4-0%		

¹ See Harvard University, Bureau of Business Research, Bulletins Nos. 78, 81, 80, 76, 52 and 43.

TABLE XIII
Operating Results of Retail Businesses according to Size of City.¹
 (Net Sales = 100%.)

	Department Stores with Sales over \$1,000,000 : 1926.				Department Stores with Sales under \$1,000,000 : 1926.			
	Less than 50,000	50,000-99,000	100,000-399,000	400,000 or over	Less than 25,000	25,000-49,000	50,000-99,000	100,000 or over
Population								
Number of Firms	29	39	58	37	186	53	25	20
Gross Margin	32.2%	32.1%	32.3%	33.8%	27.8%	30.9%	30.4%	31.3%
Salaries and Wages	16.1%	16.4%	15.8%	16.2%	13.0%	16.6%	16.2%	17.0%
Rent	3.1	3.1	3.2	3.5	2.4	3.1	3.6	3.6
Advertising	2.3	3.1	3.2	3.4	2.1	2.7	2.8	3.1
Interest	2.3	2.1	1.7	1.7	2.8	2.4	2.0	1.8
Other Expense	5.7	5.8	6.0	5.8	5.4	5.9	5.6	5.3
Total Expense	29.7%	30.5%	30.2%	30.8%	27.7%	30.7%	30.2%	30.8%
Net Profit	2.5%	1.6%	2.1%	3.2%	0.1%	0.2%	0.4%	0.5%
<i>Lumber Dealers : 1927.</i>								
	Less than 10,000	10,000-49,000	50,000-399,000	400,000 or over	<i>General Stationers : 1928.</i>			
					Less than 50,000	50,000-99,000	100,000-399,000	400,000 or over
Population								
Number of Firms	37	41	36	15	61	25	33	27
Gross Margin	23.4%	24.5%	23.8%	26.0%	33.0%	33.5%	36.0%	37.2%
Salaries and Wages	9.65%	10.8%	11.35%	13.2%	17.5%	17.6%	19.1%	19.6%
Rent	1.7	1.5	2.0	2.2	4.4	4.0	5.2	4.6
Advertising	0.45	0.5	0.3	0.8	1.4	1.6	1.2	1.3
Interest	3.5	3.1	2.8	2.7	2.7	2.3	2.3	2.3
Other Expense	5.7	7.1	7.35	7.9	6.0	6.2	7.6	8.4
Total Expense	21.0%	23.0%	24.0%	26.8%	32.0%	31.7%	35.4%	36.2%
Net Profit or Loss	2.4%	1.5%	Loss 0.2%	Loss 0.2%	1.0%	1.8%	0.6%	1.0%
Net Gain :								
Percentage of Net Sales	7.2%	4.3%	2.8%	2.9%	4.0%	4.1%	3.1%	3.4%
Percentage of Net Worth	9.5%	9.6%	6.4%	6.7%	9.5%	13.2%	8.7%	9.7%

Retail Jewellery Stores : 1927.

	Less than 25,000	25,000— 99,000	100,000— 399,000	400,000 or over
Population . . . . .	.	.	.	.
Number of Firms	89	57	45	39
Gross Margin	40.7%	41.5%	40.8%	41.0%
Salaries and Wages	17.3%	18.3%	18.6%	17.5%
Rent	4.5%	5.5%	5.3%	5.0%
Advertising	2.7	3.5	3.9	4.0
Interest	6.2	5.4	5.1	4.5
Other Expense	7.5	8.6	8.3	7.7
Total Expense	38.2%	41.3%	41.2%	38.7%
Net Profit or Loss	2.5%	0.2%	Loss 0.4%	2.3%
Net Gain : Percentage of Total Receipts Percentage of Net Worth	8.6% 9.0%	5.5% 8.0%	3.9% 6.4%	7.0% 9.9%

Retail Grocery Stores : 1924.

	Less than 25,000	25,000— 49,000	50,000— 99,000	100,000— 399,000	400,000 or over
Population . . . . .	.	.	.	.	.
Number of Firms	293	79	42	81	50
Gross Margin	19.3%	20.8%	21.1%	20.0%	20.1%
Salaries and Wages	— ^a	— ^a	— ^a	— ^a	— ^a
Rent	1.3%	1.3%	1.6%	1.2%	1.7%
Advertising	— ^a	— ^a	— ^a	— ^a	— ^a
Interest	— ^a	— ^a	— ^a	— ^a	— ^a
Other Expense	16.3%	17.4	16.9	17.1	16.8
Total Expense	17.6%	18.7%	18.5%	18.3%	18.5%
Net Profit	1.7%	2.1%	2.6%	1.7%	1.6%

¹ See Harvard University, Bureau of Business Research, Bulletins Nos. 63, 75, 80, 76 and 52.

² Common figure not determined.

of retail lumber dealers and general stationers, however, there is some basis for believing that size of city may be a matter of some consequence. In both these trades the ratios for gross margin as well as for total expense were higher for the concerns in the larger centres of population, and this tendency is for the most part contrary to the apparent effect of relative sales volume indicated in Table X. Here cognisance should be taken of the fact that the retail lumber trade and the stationery trade (at least in the larger cities) both tend to be industrial in character; that is, their dealing is largely with other business firms rather than with private individuals. Both of them employ "outside" salesmen to solicit patronage. Exactly why businesses of this type should incur higher operating expense ratios in larger cities and consequently require higher gross margins is not clear. It is possibly significant that substantially the same situation was found to obtain for wholesale grocery firms in 1923 classified according to size of city, as shown in Table XIV. Definite conclusions, however, with respect to the significance of the population factor must await further study.

TABLE XIV

Operating Results of Wholesale Grocery Firms in 1923 according to Size of City.¹

(Net Sales = 100%.)

Population.	Less than 50,000.	50,000– 99,000.	100,000– 399,000.	400,000 or over.
Number of Firms	323	71	67	38
Gross Margin	11.1%	11.5%	11.3%	13.3%
Total Salaries and Wages	5.5%	6.0%	6.0%	7.3%
Rent	0.5	0.6	0.6	0.6
Advertising				
Interest	1.5	1.5	1.4	1.2
Other Expense	2.7	2.9	3.0	3.7
Total Expense	10.2%	11.0%	11.0%	12.8%
Net Profit	0.0%	0.5%	0.3%	0.5%

¹ Harvard University, Bureau of Business Research, Bulletin No. 40.

IX

Tables X to XIII, inclusive, have presented figures for retail concerns grouped according to the several sets of internal and external conditions, such as relative sales volume, sales increase

or decrease, rate of stock-turn and size of city, which might be expected possibly to influence their operating ratios. In Table XV a different approach is taken, and figures are presented for firms grouped according to their final profit and loss showing, in the sense of return over and above interest on investment. In this table large and small department stores, retail jewellery stores, retail lumber dealers and general stationers are ranged in groups from those showing the largest losses to those obtaining the highest profits. The results of this comparison are striking. In each of these trades the firms enjoying the most favourable profits are those with the lowest ratios for total operating expense. It is true that for the department stores with sales over \$1,000,000 and for the retail jewellery stores, part of the more favourable results for the firms enjoying the best profits is attributable to higher gross margins; but even in these cases a considerably larger part of their profit-showing is attributable to this lower cost of doing business. For retail jewellery stores in 1927, for instance, total expense varied from 49 per cent. of net sales for firms with losses of 5 per cent. or over to 32.8 per cent. of net sales for firms with profits of 5 per cent. or more, whereas gross margin for these two groups varied only from 38.5 per cent. to 43.9 per cent.

These results are corroborated by similar comparisons which the Bureau has made for these trades and others in several different years; and the fact that the retail concerns making the best profits are uniformly those with the lowest operating expenses is by all odds the best attested and most significant finding which has come out of the Bureau's studies of retail business.

X

Finally, brief conclusions on some of the principal matters discussed in this paper may be offered as follows :

(1) In retail trade in the United States the average or typical profits, beyond compensation for managerial services and interest on investment, are comparatively small. From the experience of the Harvard Bureau of Business Research, however, it does not appear likely that, by and large, net profit in the narrow sense is non-existent in retail trade. This conclusion is reached after making some allowance for the fact that the firms reporting to the Bureau may be managed rather more effectively than the average run of concerns.

(2) Since the condition of relatively small net profits

TABLE XV
Operating Results of Retail Businesses according to Profit or Loss.¹
 (Net Sales = 100%.)

<i>Department Stores with Sales over \$1,000,000 : 1928. Department Stores with Sales under \$1,000,000 : 1928.</i>									
	Loss.			PROFIT.			Loss.		
	Under 2%.	2-3-9%	4% or over.	2-3-9%	4% or over.	2-5% or over.	Under 2-5%.	Under 2-5%.	2-5% or over.
Number of Firms . . .	44	35	35	35	35	58	71	70	52
Gross Margin . . .	32-0%	34-1%	34-1%	34-1%	34-1%	29-2%	29-3%	29-9%	30-0%
Salaries and Wages . . .	17-3%	16-4%	15-8%	16-4%	15-8%	17-7%	16-5%	15-9%	13-8%
Rent . . .	4-2%	3-5%	3-0%	3-8%	3-0%	3-5%	3-0%	2-7%	2-6%
Advertising . . .	3-9%	3-15%	2-6%	3-0%	2-6%	2-9%	2-5%	2-2%	2-0%
Interest . . .	2-3%	2-2%	1-8%	1-9%	1-8%	3-3%	2-7%	2-6%	2-4%
Other Expense . . .	6-5%	6-35%	5-8%	6-0%	5-8%	6-6%	5-9%	5-3%	4-6%
Total Expense . . .	34-2%	31-8%	29-0%	31-1%	29-0%	34-0%	30-6%	28-7%	25-4%
Net Profit or Loss . . .	Loss 2-2%	1-2%	5-1%	3-0%	5-1%	Loss 4-9%	Loss 1-1%	1-2%	4-6%
Net Gain or Loss :									
Percentage of Net Sales	1-50%	3-9%	7-8%	5-9%	7-8%	Loss 1-1%	1-69%	3-7%	7-3%
Percentage of Net Worth	2-9%	8-9%	16-9%	13-6%	16-9%	Loss 2-4%	3-6%	9-4%	16-2%

General Stationers : 1928.

	Lumber Dealers : 1928.		Profit.		Loss.		Profit.		Loss.	
	2.5% or over.	Under 2.5%.	Under 2.5%.	2.5% or over.	2.5% or over.	Under 2.5%.	Under 2.5%.	2.5% or over.	2.5% or over.	Under 2.5%.
Number of Firms . . .	28	28	36	46	25	25	43	53	34.7%	30.0%
Gross Margin . . .	23.6%	26.3%	25.8%	26.9%	33.4%	35.6%	34.6%	34.7%	33.6%	30.0%
Salaries and Wages . . .	14.4%	12.2%	11.6%	9.3%	20.8%	20.1%	18.0%	16.3%	18.0%	16.3%
Rent . . .	2.4	2.1	1.7	1.5	5.5	5.2	4.5	4.1	4.5	4.1
Advertising . . .	0.6	0.7	0.7	0.6	0.85	1.55	1.75	1.3	1.75	1.3
Interest . . .	4.2	3.4	3.2	2.7	3.0	2.9	2.3	2.3	2.3	2.3
Other Expense . . .	7.9	9.0	7.3	7.3	7.85	6.95	7.05	6.0	7.05	6.0
Total Expense . . .	29.5%	27.4%	24.5%	21.4%	38.0%	36.7%	33.6%	30.0%	33.6%	30.0%
Net Profit or Loss . . .	Loss 5.9%	Loss 1.2%	1.3%	5.5%	Loss 4.6%	Loss 1.1%	1.0%	4.7%	1.0%	4.7%
Net Gain or Loss :										
Percentage of Net Sales	Loss 0.5%	2.5%	5.0%	8.5%	Loss 1.5%	2.0%	3.5%	7.2%	3.5%	7.2%
Percentage of Net Worth	0.0%	4.8%	9.4%	15.5%	Loss 5.4%	4.4%	9.5%	20.5%	9.5%	20.5%

Retail Jewellery Stores : 1927.

	Loss.		Profit.	
	5.0% or over.	Under 5.0%.	Under 5.0%.	5.0% or over.
Number of Firms . . .	44	56	63	67
Gross Margin . . .	38.5%	39.1%	40.9%	43.9%
Salaries and Wages . . .	22.6%	19.4%	17.1%	14.0%
Rent . . .	6.4	5.3	4.4	4.4
Advertising . . .	4.2	3.2	3.9	2.7
Interest . . .	6.9	5.3	5.0	4.8
Other Expense . . .	8.9	8.5	8.0	6.9
Total Expense . . .	49.0%	41.7%	38.4%	32.8%
Net Profit or Loss . . .	Loss 10.5%	Loss 2.9%	2.5%	11.1%

apparently obtains also in wholesale trade, it follows that the spread between the prices received by manufacturers and producers and those paid by consumers consists very largely of costs of doing business rather than of profits. There is some evidence that this spread is increasing because of rising costs of doing business, but whether merely as a result of waste, neglect and inefficiency, or whether in response to definitive tendencies inherent in our modern industrial development, is not clear.

(3) For the most part, retail concerns with large sales volume do not enjoy lower operating costs than those with small sales volume. In general, however, larger firms obtain better profits.

(4) Retail enterprises with relatively rapid rates of stock-turn almost invariably have lower operating expenses and obtain more favourable profits than those with slower rates of stock-turn. Rate of stock-turn in itself, however, is probably not the primary cause of these variations, but rather should be regarded as one of the principal indices of the general efficiency with which the business is conducted.

(5) A low expense ratio contributes more to the profit of retail business than does a high rate of gross margin. The cost of doing business lies more largely within the control of the individual management than does the rate of gross margin, inasmuch as the individual business both buys and sells in competitive markets. It may be stated, therefore, that profits are more closely related to the controllable factors in a retail business than to the uncontrollable factors. Whether or not there is any basic level of pure profit in retail business which society must pay in order to obtain entrepreneurial and managerial services, and which therefore plays a part in the determination of prices, it seems clear that significant variations in profit or loss are governed principally by differences in the quality of management rather than by fortuitous circumstances.

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INHERITANCE

A SAMPLE INQUIRY¹

THE procedure at first adopted by the Special Committee on Inheritance to obtain a genuine statistical "sample" of fortunes and their history was the preparation of a standard form of details to be completed by executors, and by others with first-hand knowledge of estates, under conditions, if so desired, of individual confidentiality. The members of the Committee undertook to circulate these amongst their acquaintances, and to endeavour by their combined efforts to obtain a sufficient number to allow reasonable conclusions to be drawn from the aggregation. An appeal was also made through the Press to those interested in helping a scientific inquiry, to apply for one of these forms from the Secretary. The general result of this effort was disappointing as to the total number obtained, but it served to bring out the difficulties, even where there was complete willingness to assist in the inquiry, and a real interest in the method, and indeed in the subject. These may be briefly summarised :—

¹ This article is the substance of a report by a special committee to Sec. F of the British Association at Bristol, September 1930, drafted by the Chairman. The Committee was first appointed in September 1926, to carry out further investigation of certain questions arising out of the Presidential Address given by Sir Josiah Stamp to the Oxford Meeting of the Section upon "Inheritance as an Economic Factor" (*ECONOMIC JOURNAL*, January 1927). The terms of reference covered the subject of Inheritance as an influence upon the distribution of wealth.

The Committee consisted of the following members: Sir Josiah Stamp, G.B.E. (Chairman), Mr. Josiah Wedgwood, who acted as scrutinising secretary up to the Glasgow meeting (1928), Mr. R. B. Forrester, Secretary, Miss L. Grier, Professors Cannan, Macgregor, Clay, Hallsworth and Smith, Dr. W. H. Coates and Sir Alfred Yarrow.

In addition to the inquiry work carried out by the Committee, the results of which are surveyed in this article, Mr. Josiah Wedgwood, the scrutinising secretary, made two special contributions to the subject of investigation under the auspices of the Committee; the first was his paper to the Section at Leeds (1927), in which he described a first sample investigation of the fortunes of parents and children; it comprised 99 English estates in excess of £200,000, left during the year 1924-25. As a consequence of discussion at Leeds, Mr. Wedgwood decided to take a second sample of fortunes between £10,000 and £200,000, and the Committee made a grant towards the fees payable by him to the Probate Registry. This second sample consisted of 124 estates passing in a few weeks of 1926. This is now published with acknowledgment to the British Association, together with the first sample in Chapter VI of Mr. Wedgwood's book upon the Economics of Inheritance (published London 1929).

- (a) The inability of executors to record, from their own knowledge, what wealth has been given away by the deceased, especially in the years not immediately prior to decease.
- (b) The inability of executors and beneficiaries to state the actual accessions that have been made to the fortunes of the deceased during the earlier lifetime, or to state positively that there have been none.

The Committee then decided to make a direct appeal to a number of executors by sending them a slightly revised form and a suitable covering letter. The method adopted was regular selection (every third estate over £5,000 was chosen, counting 1, 2, 3, 1, 2, 3, etc.) from the daily lists of Probates in *The Times*, which statistically are compiled at random, between the date September 1st, 1928, and December 31st, 1929. Over 3,000 forms were issued, and again the numbers actually completed were small.

" A " MALES.

Class of Estates.	No.	Total Value at Death. £.	Alienated during Life.		Total Fortune including Sums Alienated. £.	Percentage of Inheritance to Fortune.	Sums (included in the foregoing) Inherited or received by Gift.	
			No.	Amount. £.			No.	Amount. £.
Over £50,000	6	935,600	5	441,000	1,376,600	6.5	3	90,000
£25,000 to £50,000	10	323,200	2	55,900	379,100	13.3	5	50,300
£5,000 to £25,000	17	225,500	2	9,500	235,000	30.9	13	72,500
Total " A "	33	1,484,300	9	506,400	1,990,700	10.7	21	212,800

" B " MALES.

Over £50,000	3	475,186	2	118,000	593,186	3.4	20,000
£25,000 to £50,000	4	135,239	1	10,900	145,239	8.3	12,000
£5,000 to £25,000	16	182,920	7	11,400	194,320	28.2	54,850
Total " B "	23	793,345	10	139,400	932,745	9.3	86,850

THE SAMPLE (TOTAL " A " AND " B ").

Over £50,000	9	1,410,786	7	559,000	1,969,786	5.6	4	110,000
£25,000 to £50,000	14	458,439	3	65,900	524,339	11.8	7	62,300
£5,000 to £25,000	33	408,120	9	20,900	429,320	20.7	22	127,350
Total	56	2,277,645	19	645,800	2,923,445	10.2	33	299,650

Despite the fact that the aggregation of cases is not large enough to form the basis of universal and firm generalisations, it does throw up some interesting results, which are well worth recording, provided that the limitations and risks of the statistics of small numbers are borne in mind. The sample as collected by the members of the Committee is shown on page 634, described as "A," that obtained by systematic general issue of forms is called "B," and the two together are given as "The Sample."

The following general statements may be made about these results :—

(1) The two samples, derived in different ways, lend considerable support to each other in their broad tendencies, and indicate that the combination may not differ widely from a general condition. The graduation of estates by total amounts, and by numbers, in the sample, compares with the graduation for the whole of the United Kingdom as follows :—

	Sample.		Aggregate for United Kingdom.	
	Percent- age of Amounts.	Percent- age of Numbers.	Percent- age of Amounts.	Percent- age of Numbers.
Over £50,000 .	61.9	16.0	53.0	11.1
£25,000 to £50,000 .	20.1	25.0	15.4	12.7
£5,000 to £25,000 .	18.0	59.0	31.6	76.2
	100.0	100.0	100.0	100.0

It will be seen that the sample draws rather more heavily upon the higher estates in proportion to the lower than their actual total distribution in the country. This difference in weighting must be borne in mind before any attempt is made to generalise from the results.

(2) There is a definite progression in the proportion of inheritance to total fortune, as the fortune increases; the larger fortunes have been made to the greatest extent within the lifetime of the individuals and owe least to bequest.

(3) For fortunes, in general, left in recent times about 10 per cent. has been inherited in this sample. But if each grade is accepted as generally true then the total for all estates, owing to the different weighting referred to above (under 1), would be raised to over 14 per cent.

(4) For fortunes in general, the sums given away during life were rather over twice the sums received during life. This would be consistent with a fairly uniform percentage over a long

period of years in the custom of giving, if the total wealth were doubled with each generation, assuming no marked change in the level of values.

(5) For fortunes from £25,000 to £50,000 the sums received and the sums given were about in equilibrium (although examination of the particular instances shows that this is hardly ever the case individually). In the larger estates the sums given away were five times the sums received.

(6) The practice of giving during lifetime is much more marked in the large estates, where some 28 per cent. was "alienated," against under 5 per cent. in the smaller estates. In numbers, nearly all the large ones gave money away, but in the small ones only about 27 per cent.

(7) As regards the period affected:—In "B" the date of death in all the cases, except one, fall within the period 1924-9 and are therefore of a similar "time class." But in "A" 19 cases were deaths prior to 1924 with estates amounting to £759,426, £208,400 being alienated in five cases, making the total fortunes £967,826, in which £175,800 was inherited in 13 cases, including one large case accounting for 40 per cent. of the whole. It would be dangerous to infer from this that there is any general tendency for the proportion of inheritance in large fortunes to diminish in more recent years.

(8) An age distribution of the cases shows the following results for "The Sample":—

Age.	No.	Estate.	No.	Alien- ated.	Total Fortune.	In- herited.	No.
Age unspecified . . .	4	416,000	1	10,000	426,000	81,060	2
Up to 55 inc.	6	82,039	1	3,000	85,039	29,500	4
56 to 70 inc.	20	472,575	5	85,500	558,075	87,450	13
Over 70	26	1,307,031	12	547,300	1,854,331	101,640	14
Total	56	2,277,645	19	645,800	2,923,445	299,650	33

This shows a negligible percentage of gifts *inter vivos* for the youngest group, 18 per cent. for the next and nearly 42 per cent. in the oldest group (reckoned upon the amount of the estate), which accords with *prima facie* expectation on the recognised tendencies. (The fact that the average size of estates increases with the ascending age groups is, of course, well known, and the greater length of time during which money can be actively made, and during which the factor of accumulation can passively operate, are two obvious reasons. It is not improbable too that vigour

of life leading to the higher ages of death is also associated with individuality in wealth-creation.)

As regards inheritance by age groups, the percentage of total fortune in the youngest is 34, in the next 15.6 and in the oldest only 5.5, which again indicates that in the sample the largest fortunes accruing to the greater ages owe less to inheritance from outside than to acquirement and accumulation during life.

The number of women's estates collected by both methods was 13.

The Estates totalled . . .	£315,366
The sums given away to . . .	20,000 (in four cases)
<hr/>	
Total fortunes . . .	335,366
The sums inherited or received by gift to . . .	173,100 in 12 cases.

As might be anticipated, these results differ completely from the male estates; the proportion of the fortune alienated is negligible but the origin of the fortune in inheritance instead of being only ten per cent. is well over one half. The numbers of cases are too small, however, for any satisfactory results by sub-division, and none is attempted.

J. C. STAMP

THE AUSTRALIAN PROBLEM

I

MUCH attention has been given both in Australia and abroad to the extremely difficult situation into which Australia has been plunged in the past six months. Many overseas critics believe that the situation is due entirely to the unsound economic policy pursued by Australian governments in the past ten years. And there are critics of the same mind at home. They would reject the idea that external conditions have exerted a dominant influence in causing the present difficulties. Australia has pursued a false policy, and a major economic crisis is the inevitable result. This is both too simple and too harsh a view of the situation. It gives undue emphasis to the effect of public policy upon economic prosperity, an error to which many critics fall an easy prey. They have all the superficial evidences of truth on their side in the Australian example. Extravagant borrowing, extreme protection, a closely regulated standard of living and chaos in public finance provide ample ground for the belief that Nemesis is upon a nation that has worshipped false gods. Was there not a growing volume of criticism before the crisis? Economists through the *Economic Record*¹ and other publications had issued warnings that it was possible to pursue a national ideal of a high standard of living too far. The British Economic Mission in 1929 reported that Australia had mortgaged its future too heavily. Even the Development and Migration Commission established in 1926 to stimulate development, and to supervise the expenditure of loans under the "£34,000,000 Agreement" with the British Government, had expressed some doubts upon the rate at which development could be achieved. Finally, the Tariff Board, at first highly protectionist in its sympathy, was becoming restive about the high costs in protected industries.² Surely there is evidence enough in

¹ *The Journal of the Economic Society of Australia and New Zealand*. See also: Sutcliffe, *The National Dividend* (Melbourne University Press); Benham, *The Prosperity of Australia* (King); Wood and Phillips, *The Peopling of Australia* (M.U.P.); Mills, Portus and Campbell, *Studies in Australian Affairs* (M.U.P.); Anderson, *Fixation of Wages* (M.U.P.); *The Australian Tariff: an Economic Inquiry* (M.U.P.); Mauldon, *The Economics of Australian Coal* (M.U.P.).

² See Report of the British Economic Mission to Australia, 1929; Second Annual Report of the Development and Migration Commission, 1929; Annual Report of the Tariff Board, 1929 (all from the Government Printer, Canberra).

these criticisms to justify the assertion that Australia's difficulties were of her own making. But the responsible critics quoted would not agree. They freely admit that our ambitious developmental policy has been in part ill-conceived. But even the most unfavourable view of the mistakes could not account for the present crisis, and it is important to make a comprehensive survey of the situation.

II

Up to the middle of 1929 Australia was favoured by a combination of circumstances that enabled the traditional policy of rapid development to be pursued with all the outward signs of success. First, wool prices were high and the clip increased steadily in volume. Wheat prices were equally satisfactory and there was a considerable expansion of production. The less important exports were on the whole favoured by satisfactory overseas prices and total exports were sustained at approximately £145 m. per annum from 1926-27 to 1928-29, compared with £120 m. for the years 1921-22 to 1923-24. Statistics for wool and wheat may be given in detail.

	Annual Average. (Figures in millions.) 1921-22 to 1923-24.	1926-27 to 1927-28.	Percentage increase.
<i>Wool.</i>			
No. of sheep . . .	81.3	103.4	23
Wool produced (lb.) . .	703	927	30
Value of clip . . .	£53.7	£71.9	32
<i>Wheat.</i>			
Acreage . . .	9.6	12.9	34
Total yield (bushels) . .	121	146	20
Value of crop . . .	£31.2	£37.5	20

The principal primary industries had thus experienced an increase in output equivalent to the increase in value.

Secondly, the terms of international trade were in favour of Australia. The Commonwealth Statistician constructs an index-

It is well to record that under the Migration agreement, Great Britain was to lend Australia £34,000,000 at low rates of interest over ten years, and 450,000 immigrants were to be absorbed. The capital required per immigrant was thus estimated at £75 in defiance of all experience: £300 per head would be a low estimate. The Development and Migration Commission through its careful investigation of costs and benefits exposed the obstacles to profitable development, and after two years of work it had been only able to recommend schemes, involving the expenditure of £5 m. Had there been the same careful scrutiny of ordinary loan expenditure the growth of the public debt would have been retarded.

number of export prices and the Government Statistician of New South Wales an index-number of import prices for that State.¹ The movements in these index-numbers for some recent years were as follows :—

	Export Prices, 1911 = 100	Import Prices, 1911 = 100	Terms of Trade 1911 = 100
	194	280	69
1921	171	214	79
1922	162	195	83
1923	194	199	97
4	228	197	116
	214	184	116
	183	174	105
1927	186	174	107

(Export prices for 1928 are not yet available.)

The ratio of international exchange was thus moving in favour of Australia up to 1925, and it was still favourable in 1927.

Thirdly, Australia was able to raise substantial loans overseas. At June 30th, 1923, the external debt was £419·6 m., and it had risen to £570 m. by June 30th, 1928, an increase of £30 m. per annum. This influx of capital was a powerful influence in sustaining prosperity, but in view of the facts recorded above concerning the export trades and the ratio of international exchange, it would be an error to attribute the high level of prosperity up to 1928 wholly to overseas borrowing. The rate of borrowing was, however, excessive, and there were indications both in Australia and in London that some reduction must take place. The interest burden on the external debt in this period rose from £19·1 m. to £27·6 m., an increase of 44 per cent. compared with an increase of 36 per cent. in the debt, a clear indication that borrowing was becoming more costly. The ratio of interest payments to exports and recorded production (estimated to be about two-thirds of national income) was as follows :—

	Percentage External Interest to—	
	(a) Exports	(b) Production.
1921	12·4	4·2
1923	16·2	5·0
1928	19·5	6·0
1929	19·2	6·1

The situation disclosed by these percentages was becoming precarious even with the satisfactory condition of export production. While overseas borrowing continued the transfer problem

¹ The utility of this index-number as a measure of import prices is discussed in Benham, *The Prosperity of Australia*, pp. 251-55.

was not difficult, a condition familiar to all debtor countries since the war. For interest on the public debt Australia now has a transfer problem amounting to nearly £4 10s. per head, much higher than Germany, and any other country except New Zealand. It was the magnitude of this transfer problem that caused concern to competent observers of the economic condition of Australia even in the days of prosperity.

III

But it was not the only danger spot in the position. Four others must be mentioned. First, the development of industry was depending more and more upon the tariff and other forms of assistance. Taking the average of the years 1911-12 to 1913-14 and 1924-25 to 1926-27, employment of males in all rural industries increased by 4 per cent. compared with 38 per cent. for manufacturing industry. Manufacturing production increased from 26 per cent. of total production in 1913 to 35 per cent. in 1927-28 and 36 per cent. in 1928-29. This was a natural development in a country that had first pursued primary production and later turned to secondary industries. But the development was somewhat forced. Only two primary industries had shown a substantial increase in males employed in the period above mentioned. These were dairying and sugar, both favoured by the tariff. In manufacturing the greatest increases had occurred in protected industry, and the increase was roughly proportional to the degree of assistance given. Obviously, development of this kind is costly and throws a heavy burden upon export industries. The Tariff Committee, appointed by the Prime Minister, reported in 1929 that the cost to the export industries was about 8 per cent. in 1926-27, and it viewed any increase with concern.¹

Secondly, the Australian price level had remained at approximately the level it reached after the post-war deflation. U.S.A. prices were lower relatively to the 1913 position, and

¹ See *The Australian Tariff: an Economic Enquiry*, Part VI. On p. 87 the Committee stated: "Our surplus resources available to subsidise industry are limited and will not stand any greater strain than imposed by the present tariff." In spite of efforts to develop secondary industries and to stimulate immigration by loan expenditure, the rate of growth of population was falling after 1920. The natural increase declined from 1.5 per cent. in 1920 to 1.2 per cent. in 1928. Immigration was high from 1922 to 1927, and for the eight years ending June 30th, 1929, accounted for 0.55 per cent. per annum increase in population. This is equivalent to the rate of increase from this source before the war, but immigration declined after 1928 and is at present negligible. Present trend of population indicates that the rate of economic progress in Australia will be less in the immediate future than it was either before or after the war.

British prices fell continuously from 1924. In 1928, British prices as measured by the Board of Trade index-number were about 33 per cent. above pre-war levels, while Australian were 65 per cent. up. Whilst these figures cannot be taken as an accurate measure of the disparity in price movements in Australia and overseas, there is no doubt that the Australian price level was sustained at a high figure, while overseas prices were either falling or stable at a lower level. Two main causes account for this disparity. First, the overseas borrowing increased spending power and the volume of bank credits, and, secondly, the high prices for Australian exports were reflected in high internal prices. The tariff was, of course, a contributing factor in keeping up the prices of manufactured and sheltered goods, but in the absence of the other two main causes the tariff could not have sustained high prices without forcing a contraction of export production.

Thirdly, the general level of wages was rising. In 1922 there was added to the basic wage what came to be known as the Powers' 3s. This was intended to compensate for the losses incurred by wage-earners on account of the rise in the cost of living and the lag in the adjustment of wages, but it was continued after the reason for it had disappeared. Owing to the increase in the number of workers brought within the ambit of arbitration and wage-fixing tribunals, including many engaged in State instrumentalities, the basic wage was applied to a larger number of workers. Finally, the adjustments in the basic wage have been made on the basis of an index-number of retail prices of food and house rents, estimated to cover about 60 per cent. of household expenditure. This index-number has not fallen to the same extent as a more complete index-number, including clothing and other household expenditure. Had the basic wage been adjusted according to movements in the more complete index-number, "the harvester equivalent" (the standard fixed by Mr. Justice Higgins in 1907) could have been observed with a basic wage 6 per cent. less than has been fixed. The steady upward trend of unemployment must be regarded as an indication of the development of a wage rate somewhat beyond the capacity of industry. The average unemployment for the years 1922-29 was 10 per cent., with a rising tendency. If unemployment is ignored, real wages were 8 per cent. higher in 1929 than in 1911, but when allowance is made for the incidence of unemployment the real wage was barely 1 per cent. higher.¹

¹ *Labour Report*, No. 20, 1929 (Commonwealth Bureau of Census and Statistics), p. 81.

Fourthly, the condition of public finance was becoming unsatisfactory. Commonwealth revenue had been buoyant during the period of high imports, and the Commonwealth Government increased expenditure on schemes of development such as Federal Aid to Roads involving £2 m. per annum. With the decline in imports and the increasing burden of interest payments, deficits in the Commonwealth accounts commenced to make their appearance, and at June 30th, 1930, a deficit of £6.5 m. had been accumulated. The position in the States was much more difficult on account of the heavy loan expenditure on public undertakings. Sir Lennon Raws, in the *Economic Record* for November 1928, made a comprehensive statement of Australian loan expenditure. He found that for the financial year 1926-27 the total capital expenditure on public undertakings, including railways, had amounted to a little over £400 m. The financial returns for the year showed a deficit of 1½ per cent. on this capital. It was the increasing burden of interest payments that compromised the State budgets. This may be indicated from the following table (figures in millions):

Year.	Interest on State Debts.	Interest on Commonwealth Debt.	State Taxation.	Commonwealth Taxation.	Value of recorded Production.
	£	£	£	£	£
1923 .	25.5	17.3	19.0	49.9	379.4
1925 .	29.2	17.6	22.9	52.8	454.1
1928 .	35.6	19.5	31.2	56.6	453.3
1929 .	35.9	19.6	32.4	56.3	447.8

It is clear from this table that the percentage of interest payments to taxation and production had been steadily rising during the period. The increase in interest was due in part to an increase in the total public debt from £905 m. in 1923 to £1104 m. in 1929, and in part to the increase in the rate of interest payable on the debt. The average rate on the State debts rose from £4 13s. 2d. per cent. in 1923 to £4 18s. 11d. per cent. in 1929, and for the Commonwealth debt from £4 19s. 3d. per cent. in 1923 to £5 5s. per cent. in 1929.

IV

These weaknesses in the general economic situation and in public finance would have required some adjustment of Australian economic conditions even had the basis of prosperity not been adversely affected, by changes in overseas prices, and the attitude

of the investor to Australian securities. That this process of adjustment would have brought upon Australia a major economic crisis is not a tenable thesis. A minor alteration in the basic wage, a progressive reduction of overseas borrowing over a series of years, and an increase in taxation to balance budgets would have met the situation. Under Australian political conditions even relatively minor adjustments of this nature might have caused difficulties. The results of the 1929 Commonwealth elections fought on the arbitration issue indicated that the general public had not realised the weaknesses in Australian economic policy. To this extent it is fair to attribute the difficulties of Australia to internal policy, and to a refusal to accept readily a reversal of this policy. But the movements in price levels which commenced in the middle of 1929 completely altered the situation. The average price realised for Australian wool for the period 1923 to 1929 was 19*d.* per lb. This includes the two high years, 1923-24 and 1924-25, and if the remaining four years of the period are taken, the average price works out at 17*d.* per lb. For the season 1929-30, prices averaged 10*d.* This is a decline of nearly 50 per cent. on the price for the whole period, and of over 40 per cent. on the average price for the four years 1925-26 to 1928-29. At the ruling prices of to-day the drop would be approximately 50 per cent. on the average price for the four-year period. For wheat the average price for the period 1923-29 was 5*s.* 7*d.*, and this included two years of high prices, 1924-25 and 1925-26. Excluding these the average would be 5*s.* 2*d.* For the season 1929-30 the export price was again 4*s.* 10*d.*, but the harvest was poor and exports amounted to £10 m. compared with £18 m. on the average for the previous four years. If the export price is 3*s.* per bushel for the current season, the fall on the average of the previous six years will be nearly 50 per cent. With the reduction in the prices of other exports the loss of income to Australia on account of export production will be not less than £40 m. Last year the total exports of merchandise amounted to £97 m., to which should be added the normal export of gold of about £2 m. This was a reduction of £43 m. on the exports of the previous year, and of £52 m. on the average of the previous four years. A loss of income on exports of £40 m. is, therefore, a moderate estimate. Borrowing overseas has been about £30 m. per annum, and if this is continued the total loss of income from overseas will amount to £70 m., more than 10 per cent. of the national income in the years of prosperity. On present prospects of price movements for export production, and with a moderate

programme of overseas borrowing, Australia must look forward during, say, the next five years to a reduction of her national income of 10 per cent. This loss has reduced spending power in the export industries, and in those industries dependent upon the expenditure of loan money. There have consequently been indirect losses which have greatly increased the total loss of income in the present depressed condition of industry. Pending a readjustment of internal economic conditions to the new situation, the total loss of income is, therefore, much greater than the first loss due to a decline in income from overseas. Indications of this condition of affairs are to be found in the heavy increase in unemployment, the official percentage of trade unions unemployed having risen steadily from 12 per cent. in the second quarter of 1929 to 18.5 per cent. in the second quarter of 1930, and it is still rising. The profits of industry already show a serious decline, but as the public balance sheets include the relatively good trading period from July to December of 1929, they do not portray the full effects of the depression. A group of 35 balance sheets, however, record a 20 per cent. reduction in profits for the year 1929-30 compared with the year 1928-29. Movements in share prices anticipate the decline in profits, and the index-number of the Melbourne Stock Exchange for ordinary shares at the end of August was over 40 per cent. below the average for the years 1926 to 1929. There has been a substantial decline in share values since the end of August.

Other indications of the severity of the position may be mentioned. (i) The average yield of Commonwealth bonds increased from about £5 5s. per cent. in the middle of 1929 to £6 5s. per cent. in September last. (ii) Bank advances have greatly increased, and in the June quarter of this year were £36 m., or 14.8 per cent. higher than in the June quarter of 1928. Meanwhile deposits declined by £7 m., or 2.6 per cent., and cash reserves fell by £14 m., or 27.7 per cent. The result was an increase in the ratio of advances to deposits from 88 per cent. in June 1928 to 105 per cent. in June last. In the same period, cash reserves fell from 18.5 per cent. to 14 per cent. (iii) Rates of exchange were kept a little above par until the beginning of the present year, when they were raised by steps to $6\frac{1}{2}$ per cent., an abnormal situation for Australia, where exchange business is undertaken by the banks and rates are changed only at long intervals and in modest amounts. (iv) To relieve the overseas situation, legislation was passed enabling the Commonwealth Bank to acquire the gold reserves held by the private banks,

amounting to nearly £26 m. at the beginning of 1929. The exports of gold for the year 1928-29 were £27.7 m., and this has almost exhausted the supplies of surplus gold available for export.¹ Even with this export of gold the balance of payments could not be adjusted without special short-term borrowing in London and Australia. Imports and debt services amounted to £157 m. for the year 1929-30, and exports of goods and gold to £125 m. The deficiency of £32 m. was met by the issue of Treasury bills in London to the amount of £10 m., by long-term borrowing in the cities of Sydney and Brisbane amounting to £5 m., by increasing the overdraft of the Government to the Commonwealth Bank in London to £18 m., and by the retention in Australia of funds that would normally be transferred, but were temporarily invested in Australian securities, pending a return to parity of exchange. Estimates of this amount varying from £10 m. to £20 m. are made.² (v) Finally, the cash position of the Australian Governments has become very difficult. The deficits in the accounts for 1929-30 so far announced were as follows :—

Commonwealth	£1,471,000
New South Wales (including railways and tramways)	£4,400,000
Queensland	£723,000
South Australia	£1,626,000

It was agreed at a recent conference to publish monthly statements of revenue and expenditure. For July and August these statements show a heavy falling off in revenue. For example, it is now anticipated that the Commonwealth budget will show a deficit of approximately £10 m., chiefly on account of the decline in customs and excise revenue. The budget is to be revised, and all State Governments are now making further cuts in expenditure, and in most instances increased taxation will be necessary.

¹ In June 1930 the gold held by the Commonwealth and private banks amounted to approximately £23 m. If reserves of 40 per cent. of the note issue are maintained, and a further £2 m. kept for cash in the banks, the surplus available for export, apart from the annual production, would be £3 m.

² The total short-term indebtedness of Australian Governments in London was stated by Sir Otto Neimeyer on August 21st last as £18 m. due to the Commonwealth Bank, £8 m. to another bank, and £10 m. in Treasury bills. There is doubtless also a considerable amount of private short-term indebtedness, and in Australia considerable sums are held for transfer.

V

In extricating herself from this extremely difficult situation Australia may take one of three courses of action, each of which involves a fall in real wages and the standard of living. She may (i) deflate rapidly and restore exchange parity with London, (ii) peg the wage rate and inflate the price level sufficiently to secure the necessary fall in real wages, or (iii) attempt to stabilise internal prices and reduce the nominal wage rate by the required amount.¹ I have dealt elsewhere with the economic issues involved in these courses of action,² and will conclude by referring to the third course as offering the most reasonable all-round solution. It has been shown that this loss of income is about 10 per cent., and this suggests that the basic wage should be reduced by this amount. Such a reduction could be secured by eliminating the Powers' 3s. and fixing the basic wage according to variations in the complete index-number covering all items of household expenditure. (See the discussion on the level of wages under III above.) If fixed incomes were also taxed at a special rate, this would distribute the loss of income equitably over the whole community. An increase in the rate of tax on income from property would secure from fixed incomes their due contribution to the loss of income, and this is almost certain to be included in the revision of the Commonwealth budget. It will not be so easy to make the adjustment in wage rates. Whilst the Commonwealth Arbitration Court is the central authority controlling industrial relations, it can only function in the event of a dispute, and has no power to make "a common rule." Each industry must be considered separately, and under the 1930 Amending Act, conciliation commissioners may be appointed in the event of a dispute. This will delay proceedings. By agreement with the States a quick all-round reduction in wages might be achieved, but this course is beset with political obstacles.³

These measures if attained would automatically reduce Government expenditure and costs of production, and provide some additional revenue towards balancing budgets. If accompanied by an increase in the rate of exchange to, say, 20 per cent., substantial relief would be afforded to the export industries. The

¹ A variation of this course would be deflation over a period of years and the ultimate restoration of exchange parity.

² *Credit and Currency Control* (Melbourne University Press, 1930), Chap. VI.

³ The Commonwealth Court is now reviewing the basic wage, having already decided to suspend the award in Government Railways. If it reduces the basic wage for railways, this will be an important decision on the principle at issue.

increased prices of exportable goods and of imported goods, both directly consumed and entering as raw materials into the production of other goods, would be offset by the general decrease in prices due to the lowering of the wage rate. Prices would, therefore, remain about their present level, and this would have a very salutary effect upon the internal situation. The export industries would, therefore, gain by the full amount of the increase in the rate of exchange. Assuming the effective rate at the moment to be 8 per cent. and export production (exports plus home consumption of exportable goods) to reach £135 m., an increase of 20 per cent. would add approximately £16 m. to the income of export industries, as measured in Australian currency. This addition to income in these industries would increase their spending power, and thus act as a powerful influence reversing the present trend towards reduced output and increased unemployment in the sheltered and protected industries. Further indirect losses of national income, originally caused by the reduced spending power of export industries, would be avoided and a process of recovery initiated. The volume of export production would not suffer a serious decline, but in some cases, notably metals, there might be an increase. Thus the capacity of Australia to meet her overseas commitments would be improved. The partial restoration of national income would also have a beneficial influence upon Government finance. At present revenue is declining rapidly, but this drift would be stopped and some recovery in revenue could reasonably be anticipated. It is true that the interest burden on the overseas debt, when measured in Australian currency, would be increased by about £6 m. Against this must be set, first, the increase in customs revenue. Goods are valued for the purposes of customs duties upon the Australian price, and if the customs revenue at parity of exchange amounted to £20 m., there would be an addition of £4 m. under a 20 per cent. exchange rate. Moreover, the maintenance and possible increase of exports would enable heavier importations. If exports at a 20 per cent. exchange rate were £10 m. greater than at parity of exchange, the addition to customs revenue on account of the increased imports would be £2.5 m. Thus the increased cost of remitting interest payments abroad would be covered, and the partial restoration of national income would leave a balance of extra taxation to meet other Government commitments.

The monetary policy involved in this proposal would require careful handling. The Commonwealth Bank could act as a

complete central bank announcing its intention to buy and sell exchange at the rates quoted. In order to stimulate confidence it might purchase Government securities, thus lowering the rate of interest on Government bonds, facilitating conversion and increasing the supplies of credit available to the other banks. Confronted with the prospect of stable prices, it would not be necessary to proceed with a heavy deflation of bank advances and easier credit conditions could prevail. The policy of the Commonwealth Bank would involve some extension of credit and perhaps a slight increase in the note issue. This would have a good effect provided the price level did not rise. In this event it would be necessary for the Commonwealth Bank to reverse its policy.

The rise in the exchange rate would be regarded abroad as an unhealthy development. That is inevitable, but a legitimate answer would be found in the contention that without such a measure it would not be possible for Australia to pilot her way through an extremely difficult position successfully, and without serious distress. If the situation in Australia were kept in hand, a high exchange rate would be readily accepted. Australia has a breathing space of two years in which no overseas loans fall due. If the policy had proceeded successfully, these conversions could doubtless be arranged even with such an exchange rate. It may be doubted, however, whether something more might not be required. If Australia takes the measures suggested, involving as they do a reduction in the standard of living, and heavy increases in taxation, her recovery would be expedited if overseas borrowing could be continued, though at a progressively lower amount. The sudden cessation of borrowing would not have happened under normal circumstances. It is all the more important that it should not take place under the present abnormal conditions.

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*The University of Melbourne,
October 8, 1930.*

REVIEWS

Recent Economic Changes. By E. F. GAY, W. C. MITCHELL, and others. A Report of conditions in the United States, 1922-1928, made for the Committee on Recent Economic Changes of the President's Conference on Unemployment. (2 vols. 7½ dollars.)

Now that foreign observers seem to be wearying in the search for the causes of American prosperity, those who are enjoying that prosperity are beginning to take up the chase; all the more eagerly, perhaps, since gloomy clouds have begun to appear on the formerly clear industrial sky. When these two volumes were published, however, in 1929, the decline which was to come with the Stock Exchange crisis had not announced itself. Some of the most astute observers were convinced that the speculative boom was the normal and healthy reaction of the industrial boom and that no regression was to be expected. In some ways, therefore, this account of the nature of the economic changes which have taken place in the United States since the war is already out of date. Nowhere in the 943 pages is there any strong suggestion that the crisis of late 1929 was blowing up, or that the tremendous increase in industrial capacity and output in 1928 and 1929 was anything save an acceleration normal and proper and capable of being maintained, provided due caution were exercised.

This work is the product of a type of collaboration which has become very popular in times of national economic emergency in the United States since the end of the war; that is, to appoint a national committee of business men who, informed by the best technical and economic knowledge, might be expected to give the sound advice of those who are practising what they preach. Whether this method is sounder and more valuable than the older system of appointing a Government Committee which represented other interests than business, and sought its findings by the oral cross-examination of witnesses, is open to question. But, in a society as dynamic as that in the United States, there is much to be said for expedition, and that the newer method certainly gives. The vast mass of material presented here may be divided into three parts. The report of the Government Committee itself is merely a note of some twenty pages. The

investigations carried through, under the auspices of the National Bureau of Economic Research, by independent investigators cover the great bulk of the two volumes. The whole is rounded off with a short summary and review by Professor W. C. Mitchell.

The separate pieces of research may be considered first. They form a thorough survey of the main phases of American economic life and, since they have been carried through by specialists in constant touch with their subject, they constitute probably the most comprehensive survey, in quantitative terms, which has ever been made of any nation. But the very fact that they are quantitative necessarily involves a limit to their range. In a work dealing with American economic life as wide-sweeping as this, it is rather surprising to find that there is, save incidentally, no mention of the effects of the tariff; that the "theory of high wages"—so intriguing to European observers—gains only passing notice; that the problem of over-capacity appearing in many industries is almost ignored, and that no attempt is made to assess the net economic effects of phenomena peculiar to this society, such as intensive advertising, "high-pressure" salesmanship, the legal maintenance of competition or the social consequences of the growth of large-scale production. It is perhaps ungracious to complain of omissions when so much is given that, in a review, space prevents an adequate treatment of the mountain of facts set forth.

Professor Gay aptly introduces this section by summarising the many theories which have been put forward by outside observers to account for American prosperity. One gets the impression that put side by side in this manner most of them cancel out, plus and minus. In a chapter on Changes in the Standard of Living, by Dr. Wolman, it is made clear that, for the average person, consumption has steadily increased and continually diversified, but the conclusions are tempered by cautions that the statistical material available tells very little of the relative changes in the standard of different classes of American society. The section on industry reveals rapid changes in the scale of operation, "efficiency" and location. Professor Thorpe's contribution to this chapter is, indeed, admirable in method and interesting in result, even if it raises more questions than it answers. Using Census material, he throws doubt upon many assumptions which have gained currency. The individual establishment in the United States is not growing rapidly in size, when measured by the number of wage-earners; there is no definite proof that operation on the scale which has become common in American

concerns brings productive economies and, even on the score of stability, the large firm does not appear to have all the advantages. In addition, Mr. Thorpe breaks into quite new fields in his efforts to measure the extent of the merger movement and brings out some striking information concerning the rapid delocalisation of industry. The same bewildering change in methods and efficiency of production, so far as this can be measured, are to be discerned in the special chapters on Construction, Transportation and Marketing. The great volume of construction work appears to have contributed in large part to the industrial prosperity since the war. In the world of transport, the struggle between road and rail appears to be the chief factor in the situation. In shipping the reactions of the war building and the opening up of coast-wise trade between East and West through the Panama, with its repercussion upon industrial localisation, are the prime elements. Marketing changes, with the appearance of the chain store and the growth of instalment selling, appear to be causing a centralisation of markets, since the increased mileage of roads and the growth of the automobile have apparently led to a decline of the local market to the advantage of the larger markets in the bigger towns. The wholesaler is disappearing; hand-to-mouth buying seems to have become an established practice. The amazing variety of economic experience from one industry and one social class to another, which robs the average figure of all significance and makes any generalisation a wild clutching at one side of the situation, is made apparent in a number of chapters in Vol. II. As estimate of the average minimum volume of unemployment by Dr. Givens shows that between 1920 and 1927 the percentage unemployed was never below 5 and averaged 7.8 for the whole period, suggesting that some groups must have felt depression very heavily. Mr. Nourse's chapter on Agriculture shows that the widespread depression there was largely due to the market developments, such as the growth of the automobile, and the mechanical methods, such as the use of the tractor and combine, which have brought prosperity to industry. Professor Copeland's estimates of the national income reveal a constantly expanding income per head, but conditions vary greatly in different parts of the country, and in another section of this work (p. 76) figures are given which show that the average annual income of the farmer, presumably a "family income," ranged between \$500 and \$1200 in the years 1919-28. On the other hand, the space devoted to banking and financial influences seems to have been too small to allow treatment of the many aspects of

some of the deepest forces operating in American economic life. How far have investment banks been responsible for the flood of combines which have sprung up since 1920? Has the investment trust really brought the stability in the securities market which is often claimed for it? These are matters on which a final answer would be impossible, but the lack of any real information upon them is a definite shortcoming.

So far as one reviewer can pretend to pass judgment upon the skill and caution used in deploying and interpreting the statistical material presented, the task of "fact finding" has been carried through with energy, and the boundaries to the conclusions which could be drawn from statistics have usually been observed scrupulously. In one or two cases, indeed, the investigator seems to have stepped over the line which divides proof from hypothesis. On page 764 a comparison of national income per head in England and the United States shows, in 1924, a figure of \$375 for the former and \$697 for the latter, and the claim is made that "it seems clear that the average individual is considerably better off in this country than in England, and that the difference to-day is distinctly greater than before the war." But in the absence of any reliable international comparison of the cost of living¹ the only basis for this statement must be common observation, and common observation would suggest to many that differences in the cost of living offset in great measure differences in money income. Moreover, cost of living appears to have risen more rapidly in the United States than in England since 1914. Again (p. 357), a discussion of hand-to-mouth buying, after a good deal of contradictory evidence has been presented, the suggestion is made that in 1927 stocks of goods in the hands of industrial companies were about 20 per cent. less than they would have been if hand-to-mouth buying had not increased from 1920. The basis of this assertion is a table which shows the relation between production and sale for a small sample of companies in each of twenty-nine industrial groups. Of these, eleven groups, containing in all eighty-nine firms, show no general increase in stocks in relation to production, and eighteen groups, containing 152 firms, show an increase. The net result of taking all the groups together is that already mentioned. But the sample of firms taken could not have presented more than about 10 per cent. of the national total production, it almost certainly consisted of the very largest

¹ The estimates which the International Labour Office makes of differences in the prices of necessities in the two countries is most misleading when used to make comparisons between aggregates of all social classes.

companies, and there is no information showing how representative it is. The last word in the true increase in hand-to-mouth buying has probably not yet been said. More serious mistakes occur in the first two parts of the chapter on Industry. Professor Kimball, in pointing to the increase in capital investment per worker (p. 87), shows that the Census records an increase between 1849 and 1919 from \$560 to \$5000, but he makes no mention of changes in prices, or of the fact that the Census authorities themselves believe that these capital investment statistics are almost meaningless. On the same page there are a number of generalisations upon the economy of large-scale production which do not square with Mr. Thorpe's scientific analysis in a later section. In the section "Technical Changes in Manufacturing Industries" a table is given (p. 97) which gives fourteen series for the period 1890-1927. Some of them are adjusted for price changes, others apparently not so, although no information is given on this matter. Column 2 of that table, showing physical production, disagrees in five years with a similar table (p. 499) drawn up by the originator of the index. Column 3 disagrees in six years with a similar table on page 450. Column 5 purports to show the cost of materials used in manufacture in the United States. But there is no statement as to whether this excludes the duplication that is unavoidably present in the Census figures. If it does not, the figures are meaningless. If it does, then the column does not agree with one drawn up by Professor Mitchell (p. 859). Columns 6 and 13 are based upon Column 5, and therefore share its defects. Column 12 disagrees in two years with a similar table on page 454. But probably the worst example of the careless use of scientific statistical methods in this section is found in connection with Column 8. That gives an index, taken from another authority, of the increase in the value of industrial buildings in 1899-1922. The index, after allowing for price changes, shows an increase (1899 = 100) from 223 in 1915 to 230 in 1918 and to 296 in 1922. That in itself throws grave doubt on the index, for it is hardly likely that the increase was so small during the war, or so large during the post-war depression. Mr. Alford sets about to bring this index up to 1927 (p. 136). For the purpose he uses a Department of Commerce index, which shows quite plainly a very great increase during the war and a sudden decline in building afterwards. In short, he gets his completed index by tacking on to one curve the tail end of another, when the two curves tell quite a different story over the part that is common to both.

These, however, are but isolated examples in a body of description which undoubtedly is sound. What are the social implications of these facts when they are once found? It was never intended that the Committee responsible for the production of this work should make specific recommendations upon the economic guidance of the country. It was undoubtedly hoped, nevertheless, that the critical appraisal of recent economic trends would throw light upon the causes of the present prosperity, and give a clear view of the forces which were making for strength and weakness in the economic situation. For these it is necessary to turn to the report of the Committee itself and to the concluding review of the investigations. The report is disappointing. It adds nothing to the work of the investigators in the way of interpretation. It contains such statements as: "With rising wages and relatively stable prices we have become consumers of what we produce to an extent never before realised," as if the course of wages or the stability of prices has anything to do with how far a community consumes what it produces. It makes such claims as that "the unit cost of production has been reduced," when the only thing that is certain is that production per worker has been increased, and nothing is known of labour costs or capital costs per unit of output. Its main contribution is to stress the importance of a state of economic affairs which is never defined but is variously referred to as "stability," "economic balance," the "balance of consumption and production," "economic equilibrium" or "dynamic equilibrium." It appears to believe that this condition is becoming more evident in the United States. "For the seven years under survey a more marked balance of production-consumption is evident." But this hardly squares with the general complaint that is heard in practically all industries of increasing over-capacity. "Our intricate economic machine can produce, but it must be maintained in balance. During the past few years equilibrium has been fairly well maintained." But is this view consistent with a period when intense speculation was bringing in its train crisis and industrial regression, in which banks and investment banks were forcing into existence many mergers which had no economic justification save the profits to be made in floating their securities and in which agriculture was the increasingly poor relative of industry? There may be "a technique of balance," but it has yet to be evolved, and the first requisite will be a group of definitions outlining what it is necessary to balance, and why. Indeed, the special investigations have very little to say upon the general question of industrial

stability, and that is not all on one side. Professor Mills, in one of the most interesting chapters in the two volumes, comes to the conclusion that between 1922 and 1927 the price system was becoming increasingly stable, although even then it was simply reverting to the pre-war condition. It will be interesting, however, to see what changes in his generalisation will be necessary as a result of events since 1927. Some of the technical changes recorded might also seem to reduce the chances of sharp readjustments. The point is well made (p. 215) that the tendency towards delocalisation of industry may reduce the severity of industrial fluctuations. And since industrial skill is becoming more generalised, unemployment through maladjustment will perhaps be reduced (p. 517). But opposing forces are to be discerned. The increased use of electric power and its ease of transfer are likely to make industry more mobile (p. 128), and increase the social loss which arises from change in a complicated industrial society. There appear to be serious doubts whether the increased size of concerns brings increased stability (p. 200). There seems to be little evidence that construction has tended to greater stability in industry generally since 1920 (p. 253). Stability of employment is no greater in the post-war than in the pre-war period (p. 492). It is extremely doubtful whether such forces as intensive advertising or hand-to-mouth buying bring the increased stability which is often claimed for them. Whilst social aims and ends are so vaguely conceived, whilst one form of stability so often necessarily involves another form of instability, whilst the economic theory of dynamic conditions is still so nebulous, the attempts to determine whether a whole economic society is becoming more or less stable and balanced appears to be a vain searching.

Professor Mitchell, in a concentrated review, once again reveals his capacity for picturing the whole economic process, with its endless actions and reactions, its infinite mazes of interdependence of parts, and the constant change in the internal structure of an industrial world which yet retains the characteristics of a system. He baldly declares the post-war prosperity in the United States to be due to the fact that "since 1921 Americans have applied intelligence to the day's work more effectively than ever before . . . the old process of putting science into industry has been followed more intensively than before." Even here, however, doubts creep in. After all, the intensive use of machinery and the increased use of scientific methods largely account for the present state of agriculture. The

American industries which are depressed—cotton, coal, lumber, railways—are not to be distinguished from others by a lack of mechanical progress. And there appears to be another factor, not often mentioned, which may account for some part of American efficiency, but which is hardly connected with scientific method. The physical expansion and mechanisation of industry has required large savings. There are some suggestions scattered through these volumes that the necessary capital has been provided at extremely favourable rates of interest (see pages 731 and 769 in particular). May it be that the American saver has become more "efficient," in the sense that he is willing to save much more at lower rates of return than formerly, and has thus hurried on the intensive investment which is impossible in other countries? Many other questions are raised by Professor Mitchell's pregnant analysis. How commonly is the doctrine of "high wages" among employers held (p. 866)? In discussing (p. 886) what might have happened if there had been no restriction of immigration the statement is made that national income would probably have been greater in the aggregate, but less per capita. This would seem to imply that the "optimum population," at least for the time being, had been reached in the United States, but no grounds are advanced for this view.

Even if the present pioneering examination of the American economic system had done no more than raise such questions, it would have justified itself. It has, however, done a great deal more. It has set the seal on a new function of government—the preparation of a running commentary on industrial trends. It has provided a base investigation from which much subsequent work might be measured. It has revealed many gaps in statistical knowledge which might easily be filled. For all these reasons it is to be hoped that the issue of a bulletin of this sort will be a periodical event.

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The National Income and Its Purchasing Power. By PROFESSOR WILLFORD I. KING. (New York: National Bureau of Economic Research. 1930.)

THE investigation of which the results are contained in this volume is in some respects a sequel to the well-known publication "Income in the United States, 1919," issued also by the National Bureau, and many of the statistics have already been given in

other similar publications, especially *Recent Economic Changes*, which relate to the period 1922-28. The present inquiry covers a longer period, giving figures for each year from 1909 to 1928, though most of the statistics after 1925 are marked as provisional.

The great difficulty of using the results of this investigation lies in the absence of clear references to authorities for the figures quoted, the want of sufficient explanation of the methods used in making the rough estimates which commonly form essential parts of the tabular statements, and generally the impossibility of criticising the basis of the figures so as to form any reasonable estimate of their probable accuracy. Statisticians and economists ought not to be asked to accept results on personal authority, and there have been serious criticisms of parts of the earlier works on which this depends. In these circumstances it seems best not to give further currency to any of the estimates till they have been examined adequately with the help of statistical technique, but only to describe the processes and to comment on some novelties of method.

The numbers of persons occupied in the various industrial groups are estimated from various official sources, and they are separated into wage-earners, salaried, and entrepreneurs. Somehow or other, statistics are produced of the aggregate of income in each year in each of these classes, including also an estimate for the annual value of dwellings and some other durable possessions. By a combination of these estimated totals, average annual earnings, salaries, etc., are shown for industrial groups, and many other derived statistics are exhibited in tables and diagrams. At a later stage the income-tax statistics are used to ascertain the number of recipients of income in four very broad groups, but, as usual, no criticism is given of the validity of these figures, and their relationship to the totals already used is not discussed.

The results are throughout stated not only in current dollars for each year, but also in "1913 dollars." It is argued that since the income computed is spendable income, whether in fact it is spent or invested or arises from earnings or property, the index-numbers to be used for the revaluation (or deflation) ought to be those based on retail prices rather than those based on wholesale prices. Five series of index-numbers are given, said to be applicable respectively to (1) urban manual and clerical workers, (2) farm labourers, (3) farmers, (4) families spending \$5,000 annually for "direct goods," (5) those spending \$25,000. These index-numbers would be very interesting if we knew how they were compiled. Whichever is regarded as the most appropriate of these series is

applied to each of the columns already given in current dollars. The first section of the book (180 pages, 33 tables and 27 diagrams) contains the analysis so far described.

In the following chapters questions of the value of stocks, shares, bonds, etc., and the various classes of interest paid are considered. An attempt is made to estimate the aggregate of invested capital and its value year by year on the basis of market quotations and index-numbers. The author hardly seems to be aware of the difficulties of such estimates, nor of the work already done on the problems. Undeterred by the ambiguity of the estimates, he proceeds to deflate the dividends and the capital value by one of the retail price indices already used, on the ground that "there is little chance of constructing index-numbers on the basis of articles actually representing the physical wealth of each industry or of all industries combined. Since this method is not practicable, recourse has been had to a procedure which has its advantages and disadvantages. This procedure is to ascertain the comparative physical quantities of direct or consumers' goods which could have been obtained by the owners of the industries in question, at the various dates, had they sold their securities at the market prices prevailing and used the money thus obtained to buy direct goods. This concept is definite and specific." Sufficient comment on the process is to say that by it railroads were worth \$17,560,000,000 in 1908, but only \$12,100,000,000 in 1925.

The next stage is the adjustment of the realised national income computed in Chapter IV by adding or subtracting the increase or decrease of the value of property, avoiding double reckoning by subtraction from the capital value all new money invested out of income. The whole process is followed out both in current dollars and in 1913 dollars. No doubt in the balance sheet of a company it is correct to value the assets at the beginning and end of the year as an element in assessing the net gain, though in practice there is great variation in the method of evaluation. But no individual considering his income for the year would add or subtract any nominal change in the value of investments which he did not realise. In this respect income is surely defined rightly as for income-tax assessment unless, in fact, a man's livelihood depends on successful stock speculation. Further, the assumption that (*e.g.* in 1921) the nominal increase in capital holdings of \$15,000,000,000 could have been realised and spent in direct goods without affecting the value of the stock or the prices of the goods, is evidently not valid, and its utility as a

working hypothesis is very doubtful. In brief, changes in value of capital are not on a parity with realised income, and the two should not be combined, even though it may be useful to show them together. To go further, and deflate all by hazardous index-numbers to value in 1913 dollars, is not to give in any intelligible sense the "Total Income (in 1913 dollars) of the people of the Continental United States," but only the result of hypothetical arithmetic. By this method the income per head in 1915 was \$521, in 1916 \$254, in 1917 \$127, and in 1918 \$269, all deflated for the increase of prices.

While there may be difference of opinion about the reasonableness of several of the processes followed, there will be agreement that the results of an investigation of this kind ought to be thoroughly documented, and the exact basis of the statistics shown. The National Bureau of Economic Research is doing a disservice to the progress of statistics by issuing publications of this nature, which are widely quoted as authoritative. A. L. BOWLEY

The Imperial Banks. By A. S. J. BASTER, B.Com., B.Sc.(Econ.) (Lond.), Assistant Lecturer in Economics, University College, Exeter. Pp. ix + 275. (London: P. S. King & Son, Ltd. 1929. 12s. 6d. net.)

THIS volume is the third of "a series of investigations into some aspects of present-day British banking undertaken by the Department of Economics at University College, Exeter. It represents an attempt to tell something of the history and present position of the well-defined group of London banks operating mainly in the countries of the British Empire." There were twenty-five such banks, of which seventeen were still operating in 1877 and eight of them were established between 1826 and 1840. A disordered state of the currency, high local rates of interest, and lack of capital characterised all the outer Empire, and the local banks were too weak to aid the development of their areas. In Britain, on the other hand, there was abundance of funds for profitable investment abroad, for which Canada, Australia, and the West Indies offered a fair chance of success. In South Africa, it is stated, the Colonial Office was "unwilling to subject the feeble Government institutions to competition from powerful London banks," while in India the East India Company was concerned to support the Presidency banks, and the important Agency Houses in Calcutta had established an effective system of private banks.

The approved method of establishing the Imperial banks was by Royal Charter, since, apart from questions of prestige, such incorporation secured the privilege of limited liability and imposed upon the British Government some moral responsibility towards the subscribers of capital for the substantiality and good management of the proposed promotion. By 1840 the Treasury and the Board of Trade worked out a code of regulations forming a model charter. The liability of shareholders was limited to twice their holding, debts and engagements were not to exceed thrice the paid-up capital plus deposits in specie or Government paper, periodical accounts were to be published; no monopoly was conferred and the notes of the banks were not legal tender. "Both the colonial joint-stock banks proper, and the chartered Colonial banks operated from London, were subjected to supervision from the time of their foundation. Their flotation and organisation, the kind of business they should do, their relations with their shareholders and with the colonial governments, were all supervised, more or less closely, by the home Government, with the help of a set of rules applied universally throughout the Empire."

Omitting the Ottoman Bank (1826) and the Bank of Mauritius (1831), the charter of which was obtained by special arrangement from the Governor, the first bank chartered by the Crown to operate in the Colonies under direction from London was the Bank of Australasia, which started in 1832 and received its charter in 1835. It met with great opposition from the local banks and the State Governments till its competition by reducing discount rates and providing more credit brought it into favour. The Bank of South Australia, which started in 1837 and received a charter in 1841, followed. The Colonial Bank (chartered 1836), with a capital of £2,000,000, "was in its day the most important Empire Bank in existence"; it was really established by the West India merchants, and is now in the Barclay group. Banking was more strongly established in Canada than in the other colonies and, consequently, the Bank of North America, incorporated in London in 1836 with a capital of £1,000,000 and chartered in 1840, met with less opposition, despite its power; it was not allowed to accept deposits in London or, till 1852, to issue notes under £1. The only other chartered bank operating in Canada (except the Bank of Montreal and the Bank of Quebec, which worked for a short time under Royal Charters obtained in 1837 pending the securing of local charters), was the Bank of British Columbia, founded in 1858 at the time of the gold discoveries in that province.

In 1836 a numerous and influential body of promoters proposed to establish the Bank of India with a capital of £5,000,000, which was intended to absorb the existing banks, but they could not overcome the hostility of the Indian Government and the Bank of Bengal, and a similar project for a Bank of Asia in 1840 covering all the East broke down because the East India Company objected to its being allowed to do exchange business. The Bank of Ceylon, chartered in 1840, was an unsuccessful "planters' bank," absorbed in 1849 by the Oriental Banking Corporation, founded in 1842 and chartered as the Oriental Bank in 1851. The Oriental Bank had the right to do exchange business in India, and to prevent its having a monopoly of such business the Chartered Bank of Asia and the Chartered Bank of India, Australia, and China received their charters in 1853, but without the right of note-issue. Government opposition in South Africa was successful in excluding the Bank of Australasia from that territory and in maintaining the weak local state banks.

"The privilege of limited liability, for which the Chartered Banks had been willing to submit to so many hampering restrictions, was extended to any banking company of seven persons by the Act of 1858 and the consolidating Act of 1862," and between 1857 and 1866 some twenty-seven limited liability banks were founded to operate in the British Empire. The gold discoveries were a stimulating factor, but the Overend Gurney crisis proved a severe test for the weaker institutions and several chartered banks were brought down. The charter system, however, had now served its purpose in carrying Empire banking through its early stages, and had to yield before the greater flexibility of the new system. In 1880 the Treasury drew up a new Model Charter in which it surrendered most of its powers and duties.

A very important chapter deals with central banking in the Empire. The story of the crisis of 1893 in Australia cannot be repeated here, but that disaster led to the founding of the Commonwealth Bank in 1911, to carry on a general banking business, virtually as a government bank, in order to break the banking "ring." In 1924 it was converted into a Central Bank, but still retained its commercial functions. "The Commonwealth Bank does not control reserves, it cannot manipulate money rates and thus control credit. The Anglo-Australian banks and the local Australian institutions are far too interested in the London money market to make much use of a local Central Bank on the orthodox model, even if one were provided, and they are hardly likely to look for general leadership to a competing institution." In India

the situation was complicated by the conflict of interests and powers between the Presidency and the Exchange Banks, but the problem of central banking "has resemblances in principle to that in Australia." The Imperial Bank is expected to function both as a central and as a commercial bank, but it has no control over the note issue. Moreover, "in times of stringency the Exchange Banks, whose Head-offices are all abroad, might (and in most cases do) look to London, and not to the Imperial Bank for assistance, and in any case the constant availability of this assistance would at all times make it difficult for the Imperial Bank to bring the market under its control by any of the devices known to the more fortunately placed European banks." South Africa has only two large commercial banks, the Standard and the National, both directed from London, but in 1920 a Central Bank was established after the American style, to hold the reserves of the other banks, to have the sole right of note-issue, to discount bills, undertake exchange business, etc., but not to accept time deposits or pay interest on current accounts or grant overdrafts. "In regard to exchange, it can exert great influence on rates, as it normally holds large London balances, on account of its connection with the Government"; the gold producers also sell gold "to the Reserve Bank for minting, and thus the Reserve Bank now ships gold for sale to London and re-sells the sterling obtained thereby, the effect being further to strengthen its influence in the foreign exchange market." There are no central banks in Canada or New Zealand. Mr. Baster concludes that the lack of local money markets and the close association of the local banks with London must definitely restrict the development of central banking in the Dominions and Colonies.

A final chapter treats of the progress of the integration movement in the banks of the Empire, and Appendices deal with Empire trade, the list of chartered banks, and financial expansion of the Empire banks. Mr. Baster can rightly claim that his book "breaks entirely new ground," and it is to be recommended as interesting, informative and important.

HENRY W. MACROSTY

Unsolved Problems: National and International. By JOHN S. HECHT. (Jarrolds. 1930. Pp. 288. 16s.)

THIS is a very robust, vigorous and combative book. It is probably true that for the ordinary reader the unsolved problems will still remain unsolved at the end of his perusal of Mr. Hecht's

volume; indeed, he may be in some doubt as to what exactly is the solution which Mr. Hecht recommends. One ought not to read Mr. Hecht for his conclusions, which have a way of wrapping themselves in a certain obscurity and vagueness. He should be read as a heretic, rejoicing in his heresy; and, so read, he fulfils the highly useful purpose of initiating discussion on fundamentals, and thereby arousing from his complacency the complacent economist. For it is a remarkable quality in Mr. Hecht's work that though professedly it discusses two questions only—one national and the other international—he proceeds on the perfectly sound principle of the ultimate relevance of all things to each other. Consequently there are few economic questions which are not somewhere discussed in his pages. He is an adept at raising hares; the chase, while it lasts, is exciting and exhilarating; it is only in retrospect that somehow one has difficulty in recalling what exactly, if anything, happened to the innumerable company of hares that provided the day's entertainment.

The first of Mr. Hecht's problems is that of wages, with which is connected a just distribution of wealth and many other questions. His essential starting point is that wages spring from division of labour, and he quotes with approval Condillac's definition of wages as "the share of the product which is due to the workers as co-partners." In his further elaboration of what this share should be, Mr. Hecht's argument—and this quite apart from any consideration of the validity of his conclusions—follows a course which to most will appear logically inadmissible. In effect he contrasts the period before the introduction of division of labour, when every family worked on its own, and when "every worker, with the assistance of his wife, must have been able to produce year by year the subsistence of an average family" (p. 29) with the subsequent stage, following the introduction of division of labour. From the comparison between the two stages Mr. Hecht draws the inference that, since division of labour increases production, a similar minimum reward at least must be paid to the worker to-day. With this conclusion few will quarrel, but likewise few will accept the reason Mr. Hecht gives: "Did he receive a lower wage, he would be better off without division of labour." For in dealing with our problems to-day no appeal can usefully be made to what might have happened under conditions which have been irrevocably abandoned and which are wholly hypothetical.

The same somewhat irrational appeal to history underlies Mr. Hecht's arguments for Family Endowment, which he incor-

porates as an essential part of his wage theory. Surveying history, but not too closely, he lays down this general principle :

Without division of labour a share of the product is really due *from* workers having *less* than the average number of dependents to those having *more*, and when labour is divided the *minimum* wage must *vary* according to the number of dependents (p. 30).

The basis for this sweeping statement is that in the early community the " worker who came of a large family had . . . perforce to be supported during adolescence by produce taken from workers with less than the average family " (p. 31). To be quite candid, one does not know very much about the " worker " in that simple agricultural community which Caesar visited ; but Mr. Hecht goes further, and asserts that up to the eighteenth century the payment of wages according to the number of dependent persons was the custom in every civilised country. This doctrine of " the universality of family endowment in bygone days " can only be accepted by those who prescribe to history the lessons which she shall teach.

But though Family Endowment is fundamental to Mr. Hecht's view of wages, it is only one of a vast number of topics on which he finds occasion to discourse. Not infrequently he is guilty of tilting at what he conceives to be accepted economic doctrine rather than at economic doctrine as it is ordinarily understood by the faithful. It is possible to note here only a few of the more exciting discussions. Mr. Hecht's fundamental view of wages involves at bottom a belief in indefinite progress, and at times one catches a whiff of the pure optimism of Carey. Thus the Law of Diminishing Returns has no foundation ; it was " conceived by a country parson who should have known better " (p. 40). There is a lengthy attack on the idea of competition as the prime motive to progress ; with Rae, Mr. Hecht attributes progress to invention and to man's endowment with productive intelligence. The discussion is interesting, but one rightly suspects that there is behind it a good deal of confused thought, when it is suggested that self-interest provides a better stimulus than competition. The Law of Supply and Demand is another subject on which Mr. Hecht writes strongly, and apparently feels strongly ; so also he exposes the " utter fallacy " of that dowdy platitude, the Quantity Theory of Money, though, indeed, much of his exposure of its " hollowness " amounts merely to a more careful statement of the theory than is sometimes presumed to be necessary on a first acquaintance.

One of the most revolutionary parts of Mr. Hecht's discussion

is that which concerns value, where the tendency of his argument is to overthrow all tradition, and to prove that value is an intrinsic physical property of matter. "Indeed, if value is not an intrinsic physical property of matter, the expressions good value, a bargain, your money's worth . . . are, or all language seems to be, meaningless" (p. 98). His absolute is a physiological one, resting on fat, protein, salts and vitamins; in fact, "the minimum average daily food consumption of a whole people represents a definite quantity of commodities in every climate" (p. 92). The value of such a definite quantity of commodities rests on the fact that it keeps a family alive for a day, and therefore their value "is absolutely independent of the esteem in which they are held by a particular individual at a particular time" (p. 93). Here, then, is the economic constant; but though we may be confused by the breathless argument, our confusion is not so great as to lull our suspicions that Mr. Hecht is still more confused. For this economic constant is not a value at all; these things may be capable of rendering a constant service; but it is the purpose which they serve, and not the value attached to that purpose, which is constant. And Mr. Hecht's difficulties emerge on the application of his theory on the basis of necessaries, time-saving devices and luxuries. For luxuries frankly clude his test. "For pleasure there exists no known measure" (p. 99), and therefore to luxuries a definite utility cannot be ascribed; their value cannot be measured. So also it is apparently unnecessary to measure the value of coal, iron, tin and all other such things; chiefly because they "are provided by nature; man has merely to find, fetch and clean them" (p. 100). All this may be a theory of something; but it is certainly not a theory of value.

Only one point in the second part of Mr. Hecht's volume can be noticed here. In his solution of the international problem, he reveals himself as a thorough-going Protectionist, for whom it is difficult to find any parallel in the history of economic doctrine. At the root of all his theorising, however, there lies an ambiguity of definition which vitiates much of the crispness of his argument. His theory rests on a sharp distinction between complementary imports and competitive imports. Even admitting that there is an obvious broad distinction, and that the older theorists rather assumed the case of complementary imports in their theory of foreign trade, one wonders whether, in fact, the distinction can be drawn with the assurance and firmness which Mr. Hecht's theory seems to postulate; and one's doubts are confirmed when one reads that imports which remedy any deficiency in the home

supply must be regarded as complementary (p. 274). Mr. Hecht's ideal is the rigid exclusion of competitive imports, almost the *geschlossene Handelsstaat*, and, as not infrequently, his point of view comes out in curious *obiter dicta*. Thus, though we have in the past been proud of our shipping, Mr. Hecht tells us that "if one considers the hardships undergone by those engaged in maritime transport, carrying other people's goods about the world seems a lowly ambition for a civilised people" (p. 225).

To read Mr. Hecht is like walking on the Downs on a stormy day in March, when one is buffeted by contrary winds from every quarter of the heavens, and returns home at night tingling, but none the worse. Yet the book has two pervading defects. First, it has all the appearance of having been written in a hurry. There are sweeping generalisations, so easy to make, so difficult to verify; there are arguments which ought not to have reached a second reading; there are, on points of detail, fatuous criticisms of Adam Smith, which are little better than quibbling debating points. The second general criticism is that it would be well if Mr. Hecht mislaid his Gide and Rist. It would ill become anyone to speak ill of that most excellent publication; but even a good book may become a snare, if relied on too exclusively. Mr. Hecht sees the whole history of economic doctrine through the eyes of Messrs. Gide and Rist, whom he quotes in season and out of season. It may be academic pedantry, but one dislikes having the very non-Smithian language of Gide and Rist presented to one as the very words of Adam Smith. In the eighteenth century they spoke with a dignity of their own in Kirkcaldy.

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A. GRAY

Industrial Society. By L. C. MARSHALL. (Cambridge University Press. 3 vols. 45s. 6d.)

THESE three volumes are a revised and enlarged version of an earlier work composed by Mr. Marshall for the University of Chicago Press, and intended for use by teachers and students in the first part of the college course. The material of each volume consists of passages from a large variety of economic writers, sometimes given in full, sometimes condensed, and giving an orderly arrangement of the actual economic material and of the different angles from which it is appraised and judged.

The first volume, entitled "The Emergence of the Modern Order," is historical, giving a rapid selected survey of the steps by

which the animal man advanced to his present competence in handling his material and human environment for the better satisfaction of those needs where scarcity was the prime obstacle. The earlier types of economic organisation, slavery, serfdom, the manor, the gild, the beginnings of commercial, financial and industrial capitalism, carry us forward to the business structure of the modern world.

Volume II, entitled "Production in the Modern Order," is engaged in two closely related but distinguishable tasks. First, it presents an objective account of the forms and functions of the different types and units of production, with an analysis of the part played by natural resources in supply of materials and power. It next proceeds to set out the human factors of skill and knowledge, together with the personal incentives which under social control constitute the main operative forces in a system of competition and private property.

The new technology, especially in America, is described in considerable detail, in its application to agriculture, mining, manufacture, transport, commerce and finance, and the personal problems of economic conduct, in respect of motives of efficiency are subjected to full discussion, the differing views of economists upon controversial questions receiving fair representation. Specialisation, Concentration, Mass Production, and the modern trends towards combination and monopoly are illustrated from a number of separate sources, in their bearing upon efficiency and productivity.

The third volume, "The Co-ordination of the Specialists in the Market," spends its opening chapters in presenting in detail the features of the money market, as chief co-ordinator and director of the flows of capital into the several industries. A market is primarily a monetary phenomenon from the standpoint of its sellers and buyers, so that the money market, as presented in banking, insurance and finance, is the market of markets, the central power-status of the economist system. An interesting discussion as to the influence of rates of interest on saving, and of the theory of interest itself, is interposed between passages descriptive of the play of money markets.

Money is not, however, the only co-ordinator. The labour market, with its flows of working power between places and trades, though less facile in its mobility than money, is of great importance. Thus we are introduced into theories and practices of wage policy, trade unions and governmental regulations, and other influences affecting the wage-contract and the efficiency of labour. But

enterprise and management, standing behind the flows of capital and labour, the brain-controls of industry, the determiners of risk-taking, the calculators of future markets, require a close consideration, for upon their efficiency "profits," the central urge of capitalist industry, chiefly depend. How far is the co-ordination of private enterprises and individual seekers after gain a sound economic system? Some divergent answers to these questions are given in the closing sections of this comprehensive work.

Mr. Marshall's skill in selection and in the difficult task of organising his mass of material is to be commended highly. I am not, however, sure that he is justified in leaving out all consideration of the building up of standards of consumption and of the interaction between the changing arts of production and consumption. In his introductory passages he relegates the analysis of "wants" to something he calls "psychology," and which lies outside economics, the latter being concerned with "the processes by which men get a living."

Critical readers may sometimes question whether in his sections of interpretation Mr. Marshall has always given equality of opportunity to two different sides, especially in modern monetary problems. But, taken as a whole, the book is conducted with skill and impartiality, though American first-year students must possess a high measure of intellectual acquisitiveness if they are prepared to assimilate the immense amount of complicated food these volumes provide.

J. A. HOBSON

The Economics of the Coal Industry. By R. C. SMART, M.C., M.I.M.E. (London: P. S. King & Sons, Ltd. 12s. 6d.)

THIS book is principally devoted to a review of the present economic position of the Coal Industry, but, as the author points out, the close relation of that industry to the heavy basic industries in general calls for a study of the "industrial architecture" of the whole of these industries. In his rather cumbersome style he states that "our heavy industries, operating largely on an unremunerative basis, are distinguished by a heavy burden of excess capacity of production, together with the principle of the retention of foreign markets at the cost of high prices to the home consumer." In view of this, he advises financial reorganisation along with the scrapping of redundant plants. He also

states that "a fruitful source of error subscribed to in this country is the taking from industry of too substantial a sum in dividends."

The subsequent chapters of Mr. Smart's book are largely based on these assumptions, but he has produced no evidence to prove their accuracy. If he had made an investigation of the facts he would have found that the dividends paid by these unremunerative industries have been almost negligible during the last decade. In Chapter III he gives a very complete summary of the present condition and prospects not only of the British Coal and Iron Industries, but also of the Gas Industry, Electrical Power Generation, and the Cotton and Woollen Industries. In the following chapter the European Coal Industry is similarly dealt with. Summing up these chapters, the author says, "It is obvious that we have to face the most critical time of the post-war period before we recover our lost competitive strength. The danger of the whole position," he adds, "lies in the stubborn opposition of the British industrialist to the recognition of the economic position."

"Torpor and stolidity of temperament," he goes on to say, "is an unfortunate characteristic generally of those in control of our heavy industries to-day and in an increasing respect in regard to coal-mining."

It is with the Coal Industry that the author's relations are the most intimate, and in Chapter II he gives an excellent account of certain collieries with which he is acquainted, and finds them to be most efficient and up to date. In view of this finding, are we not compelled to assume that his condemnation of the "torpor and stolidity" of the coal-owners as a body is based on a gratuitous assumption of the backwardness of the collieries with which he has no acquaintance? Surely this is reversing with a vengeance the accepted method of arguing from the known to the unknown! He also finds that "the general level as regards mechanisation of plant and engineering methods in this country is sadly behind that of our competitors."

In support of this contention he gives the output per man shift on the Ruhr as 26 to 29 cwt. The actual figure as shown by statistics published by the Mining Association of Great Britain is 24.44 cwt. The corresponding figure for Yorkshire is 24.5 cwt. The author should have mentioned that the figures for the Ruhr are considerably above the average; for example, the output per man shift for the Saar is under 17 cwt. and for Belgium is less than 12 cwt.

It would surely have been relevant to a discussion on the

subject of European competition to have shown also the comparison between the wages earned per man shift.

The table given on p. 28 of the book shows that in the British coalfields the average earnings per man shift in August 1928 were 9s. 3.25*d.* For the same month the earnings per man shift on the Ruhr were 8s. 7.98*d.*, in Lower Silesia they were 6s. 3.60*d.* and in Polish Silesia 4s. 1.43*d.*, according to statistics.

The author appears to be very much impressed by the economies effected by Rationalisation in the Ruhr Coalfield, but it is noteworthy that German economists are not by any means convinced that the results obtained justify the enormous outlay incurred.

In discussing marketing schemes, Mr. Smart strongly advocates the closing of collieries which are at the moment unable to earn a profit and the concentration of production at the more fortunately situated collieries. If collieries were manufacturing concerns with more or less static conditions, this proposal would have considerable weight, but unfortunately, owing to changing circumstances underground, the colliery which to-day is prosperous may easily become the reverse within a year or two. On the other hand, the so-called "uneconomic colliery" is almost invariably being carried on in the expectation that underground conditions will improve.

There is one point which Mr. Smart appears to have overlooked in connection with voluntary marketing schemes, and that is the presence of a recalcitrant minority. In all departments of human activity there is always a small minority who refuse to join in schemes for collective benefit, hoping to secure the benefit of these without contributing to the cost. It is the existence of these minorities in the Coal Trade which has led a Socialist Government to form it into one of the hugest Trusts ever known in the history of industry. Under this law British coal-owners are compelled to join a Trust which has the power to fix minimum prices, and to punish by heavy fines those who sell coal below such prices.

It is a pity that the author, by the continual intrusion of offensive comments on the mentality of both the owners and workmen, has spoiled what might have been a good and useful contribution to the discussion of the difficulties of the present economic position of Great Britain. Such a statement as (p. 206) "Directors of Companies that have possibly paid up to 900 per cent. in dividends in about thirty years will say 'To hell with posterity depreciation and development accounts, let us have our

dividends,''' is certainly not helpful in the discussion of this most important and intricate subject.

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The Past and Present of Unemployment Insurance. (Sidney Ball Lecture, 1930.) By SIR WILLIAM H. BEVERIDGE, K.C.B. (London: Oxford University Press, Humphrey Milford. 1930. Pp. 47. 2s. net.)

What's Wrong with Unemployment Insurance? By RONALD C. DAVISON. (London, New York and Toronto: Longmans. 1930. Pp. 73. 2s. 6d. net.)

BOTH authors emphasise the change in the Unemployment Insurance system from the original intention of its founders and of the Act of 1920. The present position, indeed, calls for a careful reconsideration of what should be its scope and object, and since, as Sir William points out, the attempt to use it to deal with all the unemployed is bound to fail, it is necessary to work out the limits within which Unemployment Benefit rather than other methods can afford the right instrument for the purpose. To do this is one fundamental object of both authors. It is not a question of "provision" against "no provision," but rather of the form in which different classes shall be provided for. Sir William, in his *Unemployment, a Problem of Industry*, emphasised twenty years ago the need to provide both "for those who are working and those who are waiting for work," in the sense of being idle from the operation of purely industrial causes, and likely before long to return to the ranks of industry. But at the present day there is the very difficult problem of the large number who from many causes have little or no opportunity, without re-training, of returning to the ranks of the genuinely employed, and who are not suitable subjects for the benefit.

The original experimental system of 1911 and, at its first introduction, the almost universal insurance of 1920, aimed mainly at dealing with limited risks of industrial fluctuation, and established a definite contractual relation between the benefits received by the individual workman and the premiums paid in respect of him. But, as Sir William remarks, this system "never had a chance," and he sums up the history of the last ten years as a change "from insurance by contract to relief by status." In fact, the effort has been made, as with the proposals of the Blanesburgh Committee, to provide benefit for all genuine unemployed for the

term of their unemployment, though, indeed, by reason of the provision for the so-called "transitional periods," the safeguards proposed by the Committee have never been put into effect. The present working of Unemployment Insurance is strongly condemned by both authors as out-relief in the form of insurance, with employers' and workmen's contributions forming in the circumstances one of the worst of taxes—a tax on employment.

Both authors agree in recommending a limitation of the system of insurance to those classes of workers who are suited for it, if necessary on more generous lines. Mr. Davison, for instance, proposes a maximum of one week's benefit for three, and not, as in the Act of 1920, six weeks' contributions. Both also favour the use of a reformed Poor Law Authority to deal with the unemployed outside the Insurance system. Mr. Davison devotes a considerable portion of his space to dealing with this subject, including a discussion of the suitable financial contribution by the central government. His views obtain much support from the work already done by the London Public Assistance Authority. He makes out on the whole a good case for this proposal, though he perhaps skims rather lightly over some of the difficulties, notably the case of the backward authorities. He is also, perhaps, unduly severe on the considered proposals of the Blanesburgh Committee, which, owing to the "transitional" provisions, seem never yet to have been fairly tested. Sir William has some excellent criticisms of these proposals in principle and detail.

Sir William's general treatment is concerned mainly with the past history of the Insurance System and with certain specific suggestions. Like Mr. Davison, he trusts to a reformed Poor Law Authority for those unsuitable for insurance, though without working out this proposal. His treatment of the origins and development of the system is unusually good and of very great value. It is possible, indeed, to criticise certain detailed points. Thus, refusal of suitable employment, as a specific ground of loss of benefit under the Act of 1911, appears to be omitted. Similarly, the statement that "all important trades," presumably referring mainly to the bigger textiles, were kept out of the Act of 1916, appears too sweeping in view of the inclusion of such industries as iron and steel, chemicals, and explosives. But these are very minor points.

He also rightly stresses the undue burden put upon the fund by some of the more fluctuating or worst organised trades. The system, whereby, as with dock-labour, an industry can receive several times what it puts in, or whereby this and certain others

"have since the war built up again their old under-employed reserves of labour and thrown the cost of maintaining them on other industries and the taxpayer through insurance," obviously needs revision. But Sir William perhaps over-emphasises this disparity between the contributions and benefits of different industries. That the disparity is excessive can hardly be denied, but allowance must be made for the fact that the greater unemployment in the fluctuating trades, as with the seasons in building, long-period fluctuations in the machine industries, and day to day movements at the docks, is caused partly by the needs and demands of the public and the less fluctuating trades, and to that extent should be met by the former in the State contribution and by the latter in paying contributions in excess of what they receive in benefits. Similarly, too much stress is perhaps laid on the relation of individual contributions and benefits since, as was pointed out by the Blanesburgh Committee, so long as total contributions and costs balance, the scheme as a whole may be held to be solvent.

"The dangers lie not so much in the risk of demoralising recipients of relief, as of demoralising governments, employers and trade unions, so that they take less thought for the prevention of unemployment." In this connection, Sir William holds that individual malingering is greatly exaggerated and that what there is could be eliminated by adequate co-operation of employers with the exchanges in notifying vacancies for work. Indirectly, however, there is the tendency of trade unions to insist on uneconomic wage rates, and to "scarcely veiled manipulation of the scheme by employers and workmen in concert," as with the use sometimes made of the short-time system. His most interesting proposal is for the scheduling, under financial conditions much more severe than the normal, of trades with excessive unemployment, such as building, docks and cotton, to enforce reorganisation and get rid of surplus labour. His treatment of this and many other subjects well merits the most careful consideration.

N. B. DEARLE

Co-operative Marketing of Agricultural Products. By NEWEL H. COMISH. (New York: D. Appleton & Co. 1929. Pp. xxii + 479. 12s. 6d.)

As the American custom of printing what is technically known as a "blurb" upon the jacket of books has been adopted in the case of the present volume, an English reviewer cannot, in the

first instance, do better than quote from the designation of its scope as approved thus by author and publisher. "Congress has entrusted half a billion dollars to the newly created Federal Farm Board for the extension of the co-operative marketing movement as the most promising means for relieving the distresses of agriculture. What has the Farm Board to work on? What is the status of co-operative marketing now, and what has been the experience of co-operatives in the past? What are the special problems facing co-operative associations and how must these problems be met if co-operatives are to operate efficiently and fulfil the hopes of the country for a solution of the farmers' needs? All these questions and many more are answered in this comprehensive and timely book. The author writes not only as an expert observer of the co-operative marketing movement generally, but from inside experience in the organisation and direction of co-operatives. His study is discriminating and practical, presenting facts without bias and pointing out dangers and difficulties as well as the successes of co-operative experiments." Unfortunately, the pages that follow contain no reference to the creation, the functions or the policy of the Federal Farm Board, so that, despite the "blurb's" promise, we are left in the dark as to the author's views upon a vitally important question involving the relationship of the individual producer to the State and the problem of sustaining artificially internal prices for certain commodities. Writing, as he did, in 1929, he was perhaps wise to decline the rôle of prophet, but he might consistently have retained that of narrator.

While most of the other claims above are doubtless substantiated in the eyes of American readers, it is disappointing to those situated upon this side of the Atlantic to find that Professor Comish has confined himself exclusively to a description of American conditions. If he had drawn upon other countries for at least some of his historical examples it would have added greatly to the value of his contribution to the study of a particular branch of agricultural economics. Again, the total exclusion of reference to contemporaneous happenings in Europe (not suggested by the title of the book) is unfortunate from the standpoint of the American student. A noteworthy example of this shortcoming is provided by the section entitled "Co-operative Grain Associations," where even the sub-section "Grain Pools" contains no mention of Canada. We read that, although "to sign up the farmers quickly and effectively is a problem . . ." nevertheless "speeches outlining orderly marketing and higher

prices having been delivered . . . evangelists, influential farmers and organisers should then secure signatures on the dotted line." Mr. Comish holds, however, that promoters of American pools "promised too much and chattered too much about orderly marketing," and agrees that control of 3 per cent. of a crop cannot influence price. Here Canadian procedure and experience might surely have been quoted with advantage: Canadian comment on these particular pages would also be valuable to English readers. In a discussion upon compulsory *versus* voluntary pooling, the writer makes it clear that, ultimately, he favours the former.

Within its limits the work has considerable merit, for it presents very fairly the difficulties met with as well as the advantages to be derived from the application of co-operative principles to agriculture; its author is orthodox in his advocacy of the single commodity basis and in stressing the variability of marketing costs, while he might be treating of Western conditions when explaining the principles of representation best suited to co-operative societies. The series of questions appended to each chapter savour much of the students' text-book, but a too attenuated bibliography of "foreign" works dealing with the subject that ignores the Horace Plunkett Foundation's publications, dates Fay's "Co-operation at Home and Abroad" as 1920, and describes the joint-author of "Co-operation in Denmark" as "O'Brion," may cause some inconvenience and misconception to that class of reader.

J. A. VENN

Die Drei Nationalökonomien. By PROF. WERNER SOMBART.
(Munich and Leipzig: Duncker and Humblot, 1930. Pp. xii + 352.)

SOMBART's latest book is a magnificent footnote to his great work on Modern Capitalism. Readers of his *Magnum Opus* will find here Sombart's conception of the scope of Political Economy, which in his opinion differs from the current theories. There are those who look upon Economics as a normative science, in which ethical standards play a significant part; according to those who hold this view, Economics is concerned not with what is but with what ought to be. This attitude, which makes Economics a branch of metaphysics, is a characteristic not only of the scholastic writers of the Middle Ages, but also of the nineteenth-century Romantics, from Adam Müller (1779-1829) to Othmar Spann, whose *Fundament der Volkswirtschaftslehre* reached its fifth

edition in 1929, and for whom the doctrine of "just price" is a reality to-day. Sombart includes the Socialist economists in his first category—Robert Owen no less than Franz Oppenheimer—and quotes effectively Schmoller's dictum that not a single nail is hammered into the wall without ethics. Sombart has more than one shrewd thrust at this particular conception of the scope of Political Economy, and incidentally the reader will find many a valuable judgment on some of the foremost German Economists of repute.

The Normative Economists are not alone in having to face Sombart's criticism. Their colleagues who look upon Economics as a positive science will likewise have to meet his arguments. Sombart traces the growth of Natural Science in Europe and its influence on economic thought. He makes some pertinent reflections on Economic Laws, which in his opinion are entirely fictitious. As enunciated by the classical economists, these "Laws" are too much hedged about by "ifs" and "buts" and "other things being equal." Gresham's Law is a fiction no less than Marshall's Law of Substitution. There can be no real economic law because each set of economic circumstances must of necessity differ. The theory of marginal value, for example, is one thing when applied to a horse market in Eastern Galicia and quite another when considered in relation to dealings in securities on the London Stock Exchange. Your "economic man," as Mill described him, is conceivable only in a certain stage of capitalist development. Sombart has no patience with those who desire to apply scientific method to Economics.

Having given his reasons for rejecting the conception of Political Economy both as a body of doctrine which passes judgment, and a system of thought which attempts to establish rules and laws, Sombart proceeds to set forth his own view. His is "Comprehending" Economics. The term sounds a little strange even in the German original (*die verstehende National-ökonomie*), but then it is the suggestion of a pioneer who believes that in future the conception of economics and of economic activities, if it is to become useful and effective, must break away from the position it has occupied during the last 150 years. Sombart is at pains to make clear what he understands by "Comprehension," and psychologists will find abundant material for comment in the third and larger portion of the book. But whether his thesis finds acceptance or not, readers will perceive that Sombart's hand has lost none of its skill. The book abounds in attractive ideas; the style sparkles; and students will find it

not only stimulating, but also full of valuable information on the present position of the controversy in regard to the scope of Economics. Not least valuable are Sombart's reflections on the purpose of knowledge in general and of Economic Knowledge in particular.

M. EPSTEIN

Newspaper Finance Annual, 1930. Edited by R. HOPKINS.
(London General Press: Pp. 130. 10s. 6d.)

THIS useful publication includes an account of the recent phases of competition in the newspaper world, and their effects on share values. There is added a concise statement of the six main "groups," with their publications, directors and financial positions. The same details are given for other newspaper companies, and a directory of directors is appended. This is a model which might usefully be copied for some other industries.

A Select Bibliography of Modern Economic Theory, 1870-1929.
Compiled by H. E. BATSON. (Routledge: Pp. 220. 7s. 6d.)

THIS is a compilation of the work which has been done in economic theory in recent times in all countries. It does not attempt to cover economic history or descriptive economics; and, even in the field of theory, it has been necessary to exclude money and banking. In the first part, select bibliographies are given under the main headings, each work being explained, and related to other work, with a critical commentary, which is evidently the result of careful labour. In the second part, the tabulation is by authors, and includes a detailed list of contributions of all kinds, including reviews. In a foreword, Professor Robbins explains the purpose and origin of the book, and it will be agreed that the purpose has been fulfilled by Mr. Batson with remarkable completeness and erudition.

The Economic Life of the Ancient World. By JULES TOUTAIN.
English version. (London: Kegan Paul. 1930. 16s. net.)

HERE we have a volume of a notable French series of works dealing with the History of Civilisation, mostly by French authors. Each volume is a book by itself, written by a scholar of repute speaking for himself; but the general editor contributes a "foreword" to each treatise. In the present case this preface is an important introduction to the narrative of M. Toutain, who shows a marked anxiety to avoid wide general conclusions. That such conclusions do nevertheless emerge now and then, is pointed out

by the Editor. But the steady caution that inspires the "historical" method of the author is a quality that will impress a reader from first to last.

Treated chronologically under several periods, the narrative ranges from the early days of Greece down to the economic collapse of the Roman Empire. Each period is dealt with under three main subdivisions—land, its tenure and produce as the primary stay of life and source of wealth; "industry," by which is meant the production of articles other than natural fruits by the skill of men; and exchange in its various forms and degrees, from primitive barter to the full developments of commerce by land and sea. All these topics are clearly and instructively discussed. If there is nothing particularly new in the story, the economist student may be thankful to have so much interesting material carefully set out in a comprehensive view. He will meet many old friends, such as the effect of the invention of coined money and of the subdivision of labour; but he will note with approval the great stress laid by the author on two moments of exceptional economic significance. These were, the immense expansion of trade and commerce that followed the conquests of Alexander, and the unification of the Mediterranean world under the supremacy of Rome. Of these, the former not only multiplied the economic relations of East and West; the contact of Rome with the great Hellenistic kingdoms introduced new notions as to the relations of a State to its territories, and profoundly influenced Roman policy in the Provinces [pp. 109 foll.]. The latter promoted maritime trading under the shelter of the Roman Peace, and led to a period of general prosperity lasting for some 200 years.

And so the careful narrative flows on in its parts and sections, each adding to a stream that starts with the primitive needs of Homeric and Hesiodic society and ends with the "infinite main" of the Roman catastrophe, the economic downfall of the ancient world. The general effect is that of a series of pictures skilfully drawn and soberly coloured. A reader may well feel that he is travelling through many ages in good company. But the modern student of economic history is hungry for results that can be expressed in tables of figures and curves of rise and fall. Now the evidence available for such treatment of the ancient world does not suffice for a narrative statistical rather than pictorial. We must squeeze the few figures that chance has capriciously left us, and make what we can of these occasional relics. It is not M. Toutain's fault that the standards of modern economic history are

not attainable in the case of antiquity. Even in the population question the estimates of competent scholars differ widely.

But on one point there is nowadays a general agreement—that the course of events in any period of human history cannot be fruitfully studied or recounted without a watchful attention to the economic side of the story. Economic facts, like other facts, may be viewed as either cause or effect, as an earnest of the sequel or a record of the past. But their active significance must depend on their sure and exact interpretation. If official and technical evidence is incomplete and scanty, while the voice of contemporary literature is mostly partisan and rhetorical, loose and tentative conclusions can hardly be avoided. Yet this unsatisfactory condition prevails in the history of the ancient world, with which this book is concerned: more particularly in the part dealing with the Roman Empire. Legislation more and more becomes Imperial decree, so far a simple fact; but what were the exact motives of this or that ordinance, how far it was ever carried out in practice, and with what results, is often very doubtful. The cases of Domitian, Pertinax, Aurelian, Diocletian, not to mention the system of *alimenta*, are illustrations of this uncertainty in the sphere of economic history. We are, in short, very seldom if ever in a position to trace definite consequences as resulting from definite acts. We can by the way of cautious interpretation, ever awake to the defects of the evidence, detect with reasonable assurance the tendencies at work; to account for such tendencies is a much more risky undertaking.

Now it is true, as the Editor has pointed out, that out of so wide-ranging an inquiry as this book presents some large general conclusions must arise. Particular details may call for particular question, but this is mainly in connexion with the particular treatises which serve as documents to M. Toutain. The facts of "economic life" as set out under four great periods must leave on the reader's mind a deep impression. He has to follow a long course of development in which production becomes more and more technical, labour more and more subdivided and specialised. Meanwhile, the release of accumulated capital and its greater mobility attend and promote active economic growth in the world shaken up by Alexander. The checks on this progress, due to hostile relations of states and maritime piracy, are at length removed by the Mediterranean supremacy of Rome, and it seems that nothing is left to menace the continued union of prosperity and peace. On the face of it, a reader unaware of the historic sequel might reasonably expect the great Empire to be steadily adding to its resources, especially in the way of economic strength.

If the *pax Romana* was indeed the boasted universal boon described by poets and rhetoricians, ought it not to bear fruit in improvement of social and political relations all through the Empire, a matured patriotism, a cohesion organic and solid, an assured solvency guaranteeing the power of Rome to protect her subjects at whatever cost? Was not Rome, heir to all the past achievements, intellectual, moral, economic, of peoples now under her control, far better equipped than outer barbarians to profit by a recovery of health in a well-used period of rest?

And yet we know that such reinvigoration of the great imperial body never took place. Rallies and revivals did now and then prove that Rome could, by straining her resources to the utmost, beat back and chastise her enemies. But the efforts of purely military force are not in themselves restorative; unless followed by a sound convalescence within, the conquering power is apt to find them exhausting. Now the ever-present financial needs of the Empire, the growing food-problem, the reversion to payments in kind, not to mention the debasement of currency and the mad attempt to fix prices, are alone enough to show that no real recovery of vital power was attained. So we come to the "economic downfall of the ancient world," the subject of M. Toutain's concluding chapter. In it he gives a skilful summary of the manifold evils, external and internal, under the pressure of which the Empire declined and fell, and the fruits of Greco-Roman civilisation were lost in a relapse to earlier and crude economy. Nor will any serious reader take exception to the enumeration of these evils as causes of the decay of trade and enterprise, leading to stagnation and bankruptcy. But I ask myself, Is this all? I cannot quite dismiss an uneasy feeling that a further consideration remains, on which I should have been very glad to have before me the express judgment of so competent a scholar.

After referring (p. 323) to the causes of the prosperity of the Empire described in preceding chapters, he remarks that even in the early days of the Empire "the economic picture had its dark patches." He instances the deplorable condition of Greece and the evil plight of agriculture in many parts of Italy, and adds, "Even before the end of the second century symptoms of decay were appearing. Things grew rapidly worse in the third century." These admissions he justifies by a general review of this third-century worsening. Invasions, insurrections, wars of pretenders, pestilence and famine, everywhere insecurity ruinous to town and country alike, taxation unable to extract the needed revenues from wealth that was vanishing—all these, combined

with the loss of moral unity due to the persecution of the Christian religion, make up an impressive tale. But it is surely fair to remark that these items in the story of disaster must be regarded for the most part as effects not less than as causes. In particular, those of direct economic bearing; for was not the later universal compulsion-system, the despotic regulation of labour and trade, a frantic attempt on the part of the Government to provide for its financial needs? It went on from bad to worse, seeing no other way to meet its necessities. In other words, it recognised that existing means of production had broken down. But these means were the result of a system developed in the course of centuries by many peoples and absorbed with them in the great imperial unit of Rome. This absorption is often treated as a sort of ecumenical boon, and M. Toutain seems contented to accept this opinion. With all respect and gratitude to the author of so interesting and instructive a work as the present, I cannot but confess that my own studies lead me to a different view.

This is not the place for a full statement of the grounds on which my conclusions are based, but I feel bound to say here that the municipal structure of the Empire as left by Augustus appears to me a political makeshift of the same pattern as the rest of his acts. To blame the great Founder for inability to transcend the somewhat narrow bounds of Roman precedent would be absurd. But the policy of extending the system of urban communities, enjoying powers of local self-government, to all parts of the empire, carried on by his successors, was a momentous step. Gradually the Roman world was made into an aggregate of *civitates*, each with its territory ruled from the town. Upon these local units, whether created by Rome or (as mostly in the East) adaptations of former cities, there rested the common stamp of Roman constitutional tradition. Effective power was reserved to burgesses of means, but offices were elective; thus the gratification of ambitions depended on the favour of a plebeian mass, which in some of the greater cities was a mongrel rabble. That one of the chief preoccupations of local magnates was to gratify the mob by providing comforts and amusements, feasts, doles, at their own expense, is clear from surviving inscriptions. In short, the very institutions and usages that had brought the later Republic to a disastrous end in the corruption of Rome itself were planted out in her subject countries to bear fruit in the Empire. That this was eventually a political misfortune, I am convinced. But that it was from the first also a source of economic weakness seems to me beyond a doubt. The wasteful unproductive expenditure

in Rome had been bad enough. To set up hundreds—nay, thousands of municipalities, so organised as to provoke imitation of the fashions and foibles of the capital city, was surely worse. Surely the Roman Empire was not an industrial, but an imperial, colossus. It is, I fear, a misleading practice, but not a rare one, to compute the size of the Empire on one scale and its commerce on another. The existence of a few great commercial centres is liable to make us forget the vast number of cities jealous of each other's privileges, competing with their neighbours in extravagant display, all depending on the central government for the security that alone made such misuse of their resources possible. But it was this unthrifty and sometimes corrupt mismanagement that first gave Emperors occasion to interfere with the local governments, being themselves chronically in need of money and interested in the solvency of tax-paying subjects. How this intervention led on to the general despotic control and deadly stagnation of the later Empire is notorious. But when historians point out that all forms of production withered under the blight of universal compulsion, I cannot refrain from asking whether this failure was simply the result of systematic Imperial tyranny. Was it not largely due to a well-meant but unsound policy of multiplying isolated municipal units on a model of proved tendency to pamper the idle and to value the industrious by only such standards as a slave-holding civilisation can use? I am not suggesting that all or most of these municipalities were scandalously corrupt, but that their economic strength was really not so great as modern historians sometimes assert and almost always imply. I suggest that this weakness was not a phenomenon due to the disasters of the third century, though aggravated past remedy by the events of that period; but rather a characteristic inherent in their condition from the time of the Republic. That they needed restraint and correction in matters of local government is shown by the evidence of jurists and writers of the second century. It is, I hold, not well to take no notice of an institution spread all over the Empire and to attempt no estimate of its tendency as bearing on economic life for good or for evil. True, this tendency may be described as an influence (may I call it *moral*?) acting directly on human character and conduct rather than on economic life. But I think M. Toutain would agree that the economic efficiency of a community depends in no small degree on the moral atmosphere in which its members live and move and have their being.

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The Economic Aspects of the History of the Civilization of Japan.
3 vols. By YOSOBURO TAKEKOSHI. (Allen and Unwin.)

THE author of this work, in telling how he came to write it, declares that a certain Mr. Asabuki "felt distressed at the fact that there was nothing but records of wars and conspiracies in Japanese history, and, eager to see a history viewed from the point of the economic development of the nation, he urged me to write one."

Mr. Takekoshi ranks, indeed, as the chief pioneer of the economic interpretation of history in Japan. This book in English, which is largely a paraphrase of a work written by the same author in Japanese, might well have been called simply "An Economic History of Japan" instead of the rather cumbrous title it actually bears. It traces in detail and with abundant documentation, much of which is entirely new material for non-Japanese scholarship, the growth of economic institutions and ideas up to the time of the recent "westernisation." The first volume carries the survey from the earliest historic period to the death of Tokugawa Iyeyasu in 1616; the second and third continue the record to the fall of the Tokugawa shogunate and the Imperial restoration in 1868.

Perhaps the most valuable part of the book, and certainly the most original and generally interesting, is the account given of the rise of the mercantile class in the Ashikaga epoch, of the *za* alliance, which Takekoshi calls an "internal Hanseatic league," and of the Japanese free cities, of which Sakai was the most important. This side of Japanese history has hitherto been very much neglected; such a notable authority as Murdoch, in his *History of Japan*, takes hardly any notice of it. There is a widespread impression that the whole politico-economic development of Japan is summed up under the heading of feudalism, and that nothing resembling urban autonomy has ever existed in the East. A study of the evidence submitted in this book should go far to modify such an opinion. The misapprehension has arisen largely because the conditions prevailing under the Tokugawa shogunate, which persisted into the latter half of the nineteenth century, and could therefore be observed at close quarters by European historians and publicists of that time, have been too readily taken as representative of the earlier periods. But actually the Tokugawa epoch was in many ways quite unlike that of the Ashikaga which preceded it. The former was a period of the concentration, the latter of the diffusion of political power. And amid the feudal

particularism of the Ashikaga age a mercantile class grew to strength and organised itself, especially in those districts which were bases for trade or piracy in Chinese waters. This phase of Japanese history shows, therefore, parallels to European mediæval history in its urban life as well as in feudalism. The Japanese *za* presents close analogies to the *hansa*, and the history of Sakai might in outline be that of a typical French commune. From the close of the sixteenth century, however, increasing centralisation and bureaucratic control suppressed the liberties of the towns, and although the bourgeois under the Tokugawa continually enriched himself, to the impoverishment of the feudal nobles and their *samurai*, he became politically negligible and was socially humiliated in every way.

A good account is given of foreign trade at all periods; especially satisfactory is the study of Nagasaki and its monopoly during the period of isolation. Two very interesting chapters deal respectively with the Japanese corsairs and with the trading settlements and "colonial" adventures of the sixteenth century. Of the breed of sea-rovers who so nearly diverted the course of Japanese history Takekoshi says, with his characteristic simplicity of English style: "What they were after was fortune, and thinking the most likely place to find it was in foreign countries, they ventured on the sea, and moved about from place to place, just as it is a natural instinct to seek a warm place in winter and a cool place in summer."

The historical problems of currency in Japan are ably handled and are brought into relation with those of foreign trade. Takekoshi combats the view that Japanese gold specie was taken away in great quantities in the early days of commerce with European countries, and he refutes the belief that the price of gold in Japan at that time was low, quoting in his favour the report made by Saris and the British clerks at Hirado about 1610. Japan absorbed great quantities of gold from China and Indo-China, and China took copper and silver from Japan. Copper, indeed, was then Japan's principal export, as it was again during the Meiji era. "It may not be too much to say," says Takekoshi, "that it was copper which saved Japan during the Toyotomi and Tokugawa regimes."

Mr. Takekoshi is at his best on questions of currency and commerce, but there is much of interest and value also in his account of agriculture and land-tenure. In his treatment of feudalism, however, he regularly speaks of the *sho* as a manor, whereas Dr. Asakawa in his recently published *Documents of Iriki*

has given good reasons for rejecting the identification. And it must be admitted that the use of the English term tends to obscure the peculiarities of the Japanese land economy, which was based on an intensive rice cultivation without pasture.

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Ἱστορία τῆς Ἑλληνικῆς Δημοσίας Οἰκονομίας. By A. M. ANDREADES. (Athens: D. N. Tzakas, S. Delagrammatikas and Co. Vol. I, 1928, Pp. xvi + 563; Vol. II, Part i, 1930, Pp. 104.)

PROFESSOR ANDREADES needs no introduction to the readers of this JOURNAL. His *History of the Bank of England from 1640 to 1903*, which appeared in an English translation in 1909, achieved so marked a success that a second English edition was called for in 1924, and his numerous books and articles in French, covering a wide variety of subjects and ranging from the Homeric period down to these post-war days, are known and valued in circles to which his still more numerous works in Greek are a closed book. The publication, therefore, of the opening instalments of the author's *magnam opus*, which will assuredly further increase his reputation, is an event which must not be allowed to pass without notice and welcome here.

The work now inaugurated is to form the first section of a projected *System of Greek Public Economy*. This will ultimately consist of three sections, dealing respectively with (a) the history of Greek Public Economy from the heroic age down to the nineteenth century of our era, (b) the Greek Public Debt, and (c) Greek taxation. Side by side with this it is proposed to publish a *Handbook of Political Economy*, which will deal with economic theory, following the lines of the Professor's lectures on this subject. Strictly speaking, we have before us the beginning of a second edition of the author's work under the same title which was completed in 1914 and published in 1918; but, though its character and aim remain unchanged, it has been so considerably enlarged and so completely recast as to become to all intents and purposes a new work. The first volume embraces the period which ends with the loss of Greek independence on the battlefield of Chæronea, while the second is to comprise the Hellenistic or Greco-Macedonian period; the section of it which has already appeared deals with the reign of Alexander the Great.

The work is, in the author's own words, "destined primarily

for students of the economic and social sciences" (p. x; cf. 258) rather than for archæologists or ancient historians, and is an attempt to write a history of finance (*Finanzgeschichte*) rather than a general economic history (*Wirtschaftsgeschichte*). This purpose, which determines the whole scope of the work and the arrangement of the material, serves to differentiate it from other recent works dealing with the economic aspect of the ancient world, such as Glotz's admirable *Ancient Greece at Work* or Toutain's *Economic Life of the Ancient World*. It also helps to account for the fact that the discussion of Athenian finance is practically limited to that of the Periclean period and the decades which followed down to the triumph of Macedon, "that is, to the times in which what is to-day termed 'social finance' was applied" (p. 258). To the archæologist this restriction will appear as a serious loss, but he must admit the author's contention, that it is not till we reach the full development of democratic Athens that its finance "presents an interest for the public economy of the present day."

The arrangement of the work leaves nothing to be desired in the matter of lucidity and order, and the full analytical tables which preface the volumes render possible an easy and rapid survey of their contents: in the case of the second volume, this task is facilitated for most foreign readers by the addition of a French table of contents. The Preface of Volume I is followed by four "Books," which deal respectively with the Homeric world, the Spartan state, the Greek world of the classical period, and Athens. In view of the interest of Athenian finance and the abundance of the materials—literary, epigraphical, numismatic and archæological—available for its study, it is hardly surprising to find that the fourth Book outweighs in bulk the preceding three taken together. Throughout the work are scattered a number of interesting excursuses and appendices, such as those on Minoan finance (38–9), on temple finance (237–40), on Aristotle's *Oeconomica* (98–103) and on Xenophon's *Œcologia* (488–500): especially noteworthy are the two long excursuses which close the present fascicule of Volume II, that on the more important financial personalities of Alexander's reign (75–94) and that on the revenues and financial policy of Lysimachus (94–104). The volume ends with three full indexes—of financial and economic terms, of ancient personal names and of modern writers cited in the book—which greatly enhance its value.

It is not expected that everyone will agree with all of Professor Andréadès' judgments in a field where evidence is some-

times lacking, often scanty and not infrequently ambiguous or even contradictory. But the reader will find himself stimulated even when he is not wholly convinced, and he will carry away from the study of this work at least three impressions. First, that of the author's clarity both in arrangement and in expression. Second, that of his tireless energy and industry in seeking out all the relevant materials, alike in the ancient sources and in modern discussions. Third, that of his fairness and honesty; he does not approach the evidence with a preconceived view for which he seeks confirmation, but attempts by careful and unprejudiced examination to understand its true significance and value. We welcome, therefore, the work already accomplished and hope for the successful achievement of the author's ambitious project.

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Oxford.*

The Assignats. By S. E. HARRIS, Lecturer on Economics, Harvard University. (Harvard University Press and Humphrey Milford. Pp. xix + 293. 15s. net.)

THIS book, which forms Vol. XXXIII in Harvard Economic Studies, was completed as a Doctorate thesis in 1926 and was awarded the David A. Wells prize for the year 1926-7. It takes, in a great measure, almost the form of a commentary on previous writers on the currency problems of the French Revolution, especially Marion, Falkner, and Hawtrey, and unless the reader carries in his mind a fair knowledge of the economic events of that period and of the controversies arising thereout he will find it a somewhat difficult matter to follow Dr. Harris's theme. This is unfortunate, because the very considerable research which the author has undertaken—the bibliography appended covers fourteen pages—and the new facts which he has set out regarding many obscure aspects of his subject are apt to be overlooked. Some of the troubles of the ordinary student (as apart from the specialist) may be removed by the reading of Chapters VII and VIII after the first chapter, before reading the book through. The general idea of the origin of the assignats and the causes leading to their depreciation will thus prepare the reader for the more detailed study of revolutionary finance, land and the assignat, local depreciation, and foreign exchanges, on all of which Dr. Harris has done much praiseworthy work.

On the eve of the Revolution about 2200 million livres of coin

were in existence, but from a fourth to a third was hoarded. Industry and agriculture suffered from lack of capital, and political and economic conditions were unsettled. At the close of 1789 the issue took place of non-interest-bearing assignats, based on the sale of Crown and Church lands. The objections to a currency of this kind are obvious, but the continued confidence of the people in land as a security—if not that a particular assignat related to a particular piece of land—maintained the value of the new paper for a time. Land sales, in fact, absorbed large quantities of assignats in the first three years of their existence. The hoarding of commodities through the fear of war brought the beginning of depreciation, and the shortage of food supplies and of other commodities accelerated the downfall. The Terror introduced maximum prices and rationing, and though all this time the issue of assignats continued, supported by confiscation of the lands of royalists, there was an appreciation of the paper money in 1793-4. Dr. Harris holds that this appreciation was apparent only, for large quantities of assignats had to be hoarded, since "the Government not only decided how many assignats should be spent for all necessary and semi-necessary commodities, but practically decided how much was to be expended on any particular commodity." After the downfall of Robespierre the economic policies enforced by him disappeared. Prices once more bounded up, and, "as the Treasury attempted to recoup itself for losses caused by depreciation by creating more money, depreciation proceeded even more rapidly." In fact, the situation in France in 1794-5 presented phenomena not dissimilar from those we have witnessed in Germany during the recent period of inflation, and in both countries unlimited issues of paper money ended in that money having no value. But Dr. Harris rightly points out that it was not the mere quantity of money that was the sole cause of the depreciation. The shortage of goods and the imperative need for subsistence forced the offer of assignats in order to obtain that of which there was not enough. "Subsistence, supplies, security, taxation, and the other factors at work, all finally affect the value of money through changes in the quantity of paper money thrown on the market or any other variables in the equation of exchange. Quantities issued are of little significance without a consideration of the varying haste with which they are disbursed."

HENRY W. MACROSTY

Anglo-Irish Trade in the Sixteenth Century. By A. K. LONGFIELD.
(Routledge. 12s. 6d.)

VERY little is known about the economic condition of Ireland in the sixteenth century. There is an almost complete absence of original documentary sources owing to the destruction that has overtaken the Irish records, and the material that has escaped destruction deals with political rather than economic affairs. There is no good general description of the country at the time; economic conditions are either taken for granted or deemed of no importance by the Irish bardic poets, and the information to be gathered in State papers, Corporation records and other official sources is meagre in the extreme. The well-known descriptions of Ireland by Spenser, Moryson, Davies and other writers belong to a later date, when the conditions of the seventeenth century had replaced those of the sixteenth. The obscurity in which the period is enveloped has been partly relieved by Miss Longfield's interesting monograph, which throws a flood of light upon one aspect of Irish economic life. The scope of the study is necessarily limited. The importance of Anglo-Irish trade in the general economic activity of Ireland was considerably less than it is to-day, because the greater part of Irish external trade at that time was with France and Spain. The trade with England was, however, gaining at the expense of the French and Spanish trade during the period in question, as is shown by the decay of the towns in the south and west and the development of the new ports on the east coast, which depended altogether on cross-Channel trade. This change in the orientation of Irish commercial life probably indicated a decline in the prosperity of the old Irish and Anglo-Norman elements in the community.

The study is based largely upon material derived from the English Customs Accounts and Port Books. No exact quantitative estimates are possible of the volume of Anglo-Irish trade as a whole. It would appear, however, that the balance of trade was favourable to Ireland. The principal exports from Ireland were fish, timber, glass, beef, pork and cattle. The importance of the fishing industry tended to decline during the century, while that of the provision and live meat trade tended to increase. The export of timber was an unhealthy sign of the wasteful destruction of the Irish woods. In the early part of the century, corn, hawks, hounds and horses figured among the exports, but these articles appeared less frequently in the export list in later years. The imports consisted principally of manufactured goods,

salt, coal and iron. An increase in the Irish brewing industry is suggested by the growing importation of malt and hops towards the end of the century.

The increase in the share of Irish trade conducted with England during this period was a portent of the new colonial status which Ireland was doomed to occupy for the next two hundred years. In the Middle Ages Ireland had enjoyed unrestricted freedom of commerce with foreign countries. That full use was made of this liberty is shown by the fact that the Irish coast-line was far better known to foreign than to English cartographers. The seventeenth and eighteenth centuries were the period of commercial repression, when Ireland was attacked with all the weapons known to the mercantile system without possessing the power of retaliation. The sixteenth century was a period of transition. Actual restraints on trade had not yet been attempted, but the old foreign trade was breaking down and the desire for exploitation was becoming the keynote of English policy towards Ireland. The actual economic grievances most complained of during the sixteenth century were the excessive granting of licences to export wool, the debasement of the currency, and the exactions of the army which was quartered on the farmers. The country-side was time and again laid waste by war, accompanied by the destruction of farm implements, livestock and crops. Ireland entered upon the seventeenth century in a thoroughly debilitated condition.

Miss Longfield has made admirable use of the material at her disposal. The book is well documented and contains a good bibliography, and an excellent reproduction of Baptista Boazio's Map of Ireland about 1578, which is preserved in Trinity College, Dublin.

GEORGE O'BRIEN

*Trinity College,
Dublin.*

An Economic History of Europe, 1760-1930. By ARTHUR BIRNIE
(Methuen. Pp. 289. 10s. 6d.)

STUDIES in English of the forces that have shaped European industrial society are so hard to come by, and the pains of making them so great, that no reviewer would wish to appraise a newcomer ungenerously. It must be confessed, however, that the legend on the cover of this volume raised anticipations that a subsequent reading of the book did not entirely fulfil. It is not merely that Mr. Birnie confines his study to Britain, France,

Belgium and Germany : even within this limited sphere the gaps are sufficient to make one feel that a less comprehensive title might well have served his purpose.

The Industrial Revolution in manufacture is dismissed in less than thirteen pages. No attempt is made to outline the process by which the new industrial technique was carried from Britain to neighbouring countries. And if the changes in agriculture, transport and commerce receive more adequate treatment, a lack of proportion is again shown in devoting the longest chapter of all to the Co-operative Movement, and another full chapter to Profit-sharing and Co-partnership, while sparing only half a dozen pages for combinations of capital, and only a few sentences for such matters as the growth of population and its urbanisation.

Mr. Birnie's method is to describe some aspect of economic life first in Britain, then in France, and then in Germany ; and he shows skill in bringing out what is common or universal. Occasionally, however, he fails, as when a paragraph on the assignats is juxtaposed with one on the Suspension of Cash Payments of 1797, without any suggestion of a necessary connection : just as though Dr. Cannan and Mr. Hawtrey had never given their minds to the subject, the inflation of British currency during the French Wars is explained solely in terms of a panic born of the rumour of a French invasion. Incidentally, the statement in the same chapter that deflation was " tested " for a short period in 1921 but was " quickly abandoned," argues an inadequate appreciation of recent currency history.

It is when dealing with labour movements and social legislation that the author's sympathies are evidently most closely engaged. To the making of these chapters has gone much honest work, and the summary of the Factory and Poor Laws, in particular, is admirably done. The later—and larger—section of the book concerned with such matters should, indeed, serve as a valuable introduction for those who take more than an insular view of social economics, and who wish to know something of Continental solutions for problems closely related to our own.

Throughout, Mr. Birnie is at pains to simplify the task of his readers ; no errors of fact have been detected ; and the solitary misprint—" Siberia," where clearly " Silesia " is intended on p. 157—is of small account.

T. S. ASHTON

*The University,
Manchester.*

Economic Causes of the Reformation in England. By OSCAR ALBERT MARTI, Ph.D. (London: Macmillan & Co., Ltd. 1929. Pp. xxi + 254. 10s. 6d.)

THE title of Professor Marti's book is not altogether free from the reproach of begging the question, since the object of his argument is to prove that the root causes of the Reformation in this country were economic rather than religious. Other motives, no doubt, were at work, but the main motive was mercenary, even when it masqueraded under the cloak of patriotism. The roots of the Reformation reached deep down into a subsoil of money matters. Money was urgently required for national defence, was passionately coveted for private purposes, and it was to be had for the taking. The temptation was too great to be resisted.

Professor Marti describes the increasing wealth and growing corruption of the English clergy, the monstrous exactions and interference of the Pope, and the bitterness of the national feeling aroused thereby. He traces the various phases of Lollard activity, and correlates the religious movements of three centuries first with the economic progress of the nation, the rise of the towns, the growth of commerce and industry, and the emergence of a middle class, and later with the growth of nationalism and the increased centralisation of Government under the Tudor monarchy. For students of history in this country there is nothing very new in the narrative, and if it be read side by side with Mr. Tawney's *Religion and the Rise of Capitalism*, the style appears somewhat dry and the argument uninspired. It is perhaps not much safer to dispute about motives than about tastes, but at any rate Professor Marti has made a clear case and presented it in readable and interesting form.

H. REYNARD

A History of Clare, Suffolk. By GLADYS A. THORNTON. (Cambridge: W. Heffer & Sons, Ltd. 1928. Pp. xxii + 244. 15s.)

THIS interesting history of an English country town is written with the greatest care. All possible sources of information have been examined, and every statement is supported by reference in footnotes to authorities. At the same time the book will appeal to the general reader who cares for local history, both by its description of the stages in the life of the town and by its vivid details, such as the list in a weaver's will of his possessions, or the Cries of Clare Market, which "include anything from a warming-

pan to a tobacco-box, or from a runaway apprentice to an erring wife."

Miss Thornton discusses the development of the borough, the history of the town and the manor, and, lastly, the Suffolk cloth industry, with special reference to Clare. In five appendices she gives the entry in Domesday Book for Clare Manor, the list of bailiffs, constables and ale-tasters for Clare borough from 1273 to 1832, a summary of the conveyances of the Clare common pasture lands, a list of apprenticeship indentures in the woollen industry between 1627 and 1774, and a reprint of an article previously published on the Cries of Clare Market, which fall between 1612 and 1711. There are illustrations showing the town, the Castle, the Priory, the Gildhall, the parish church and the old houses, also two maps.

Clare Manor was granted by William I to Richard of Bienfaite, and his descendants remained in possession under the name of Clare. The male line became extinct with the death of Gilbert of Clare at Bannockburn and the lands passed to his sister, Elizabeth de Burgh, founder of Clare College. In 1459 they were forfeited to the Crown. They were granted by Henry VIII to his wives in succession, and finally were transferred by Queen Mary to the Duchy of Lancaster. The borough remained in the hands of the Crown; but the manor, known also as Erbury, had several different owners.

Clare, though possessing the characteristics of a borough, never ranked as one. The story of its arrested development is interesting. In the Middle Ages the relations between the town and its overlords, under whose protection it developed, were close. When the Honor, as the Clare lands were called, became a royal possession, the town was still the centre of administration; and the steward of the Honor Court also held the courts of manor and borough in the moot-hall. There was a beginning of administration by the inhabitants when Katherine of Aragon granted them all the demesne lands for ninety-nine years. The Clare wills frequently mention the "headborowes" who managed the lands "for the generall good of the whole Towne." From the books of their Verdicts in their leet, the vestry records and other sources Miss Thornton has reconstructed the life of the town and estimated the extent of its self-government.

The burgesses' first step towards freedom was obtaining the farm of the market in the fourteenth century. At this time the woollen industry had begun, though there were no great traders. References to the market and wills of weavers, fullers and shear-

men indicate the degree of their prosperity. At the end of the sixteenth century bay- and say-making was developing, and it flourished in the seventeenth. After 1714 the town prospered as an agricultural centre until the railway came.

There are many other points of interest. The gilds were religious bodies; there is no evidence of any trading functions. The first house of Austin Friars in England was founded at Clare, and its influence on the life of the town is traced. A curious fact is that the borough suffered comparatively little from the Black Death, while the Manorial Rolls give long lists of deaths of tenants. In short, the history of Clare was well worth writing, and Miss Thornton has done justice to her subject.

E. F. STEVENSON

The Wesleyan Movement in the Industrial Revolution. By W. J. WARNER, Ph.D. (Longmans. 1930. Pp. 299. 15s.)

THIS is an important work of the genus of Mr. Tawney's *Religion and Capitalism*. Historical learning and philosophic insight combine to produce a fresh interpretation of the relation between a religious outburst and the developing industrial society of the eighteenth century.

"The Methodist movement," write Mr. and Mrs. Hammond, "was a call not for citizens, but for saints." That the one need not have excluded the other if Wesleyanism had retained its pristine form is the central thesis of Dr. Warner's study. It is true that Wesley rejected the hypothesis of a social contract and assailed the radical reformers with weapons barbed with theology and ethics. But early Wesleyanism had its own social theory and sought ends not remote from those of the reformers by its own characteristic method of personal regeneration. If it frankly idealised the industrial virtues it also enjoined lavish giving, and the Methodists' pursuit of gain issued in an enlightened philanthropy. Unhappily for society, its moral outlook was clouded by a metaphysical doctrine of the divine origin of existing political authority; and after the death of Wesley, coinciding, as this did, with the reaction from the French Revolution, the cloud darkened. In the second generation the ethical teaching was obscured by the theological. A narrow legalism and a growing respectability drove from the body its more liberal-minded members. Wesleyanism ranged itself with the Establishment among the forces of conservatism; and, from this time, its social mission hardly

reached beyond instructing the poor to seek consolation in "the final proportions of eternal justice."

One misses in this book detailed biographies such as Miss Grubb has recently given us of the early Quakers. But, in an illuminating chapter, Dr. Warner makes a statistical survey of the social origins of Methodist leaders, which, if it exhibits the democratic character of the movement, also does much to explain the limitations of its programme. Possibly, too—though of this Dr. Warner says nothing—it may account for the depressing legacy of Wesleyanism to ecclesiastical architecture.

If the writer is far from the indiscriminating enthusiasm of the close adherent, he is equally remote from the cynicism of those who regard religious movements as mere soporifics. Full justice is done to the work of Wesleyanism in giving to the lives of humble men a new significance and in serving as a school of leadership. One could wish that Dr. Warner had widened the scope of his essay to include the other Nonconformist groups. An examination by his penetrating mind of the differences in thought and activities between Methodists and, say, Independents and Presbyterians would almost certainly yield notable results.

T. S. ASHTON

Catalogue of the Collection of English, Scottish and Irish Proclamations in the University [of London] Library. (Goldsmiths' Library of Economic Literature.) (London: University of London Press. 1928. Folio. Pp. 99.)

Catalogue of the Collection of Broad­sides in the University Library. (Goldsmiths' Library of Economic Literature.) (London: University of London Press. 1930. Folio. Pp. 201 + 4.)

EVERY student of our economic history and literature in the seventeenth and eighteenth centuries will welcome these fine descriptive Catalogues. The Goldsmiths' Library is one of the economic wonders of the world, but hardly anybody seems to know it, or to use it, owing to difficulties of access which will not, it seems, be overcome till the University finds a more spacious home. These catalogues cover less than one-fiftieth of the number of items in the library. Curious, interesting and instructive as they often are in the side-lights which they throw upon their subjects, Proclamations and Broad­sides (single sheets) have seldom been preserved, and the Goldsmiths' collection in this respect as in others is unique, but it can hardly be claimed that

these little papers are more than the frills of economic literature compared with the 60,000 more substantial volumes.

The Catalogues are, like the Goldsmiths' collection, chronologically arranged—a great help to research. Apart from one Proclamation of 1575 and one of 1797, the Proclamations range from 1646 to 1756 and are 429 in number. The Broad­sides cover 675 entries, but there are sometimes several grouped under one entry. They run from 1641 to 1868, but 464 belong to the seventeenth and eighteenth centuries. The descriptive matter in each Catalogue is elaborate, and includes references to the British Museum and other collections in which copies of the documents are known to exist. Some of the abridgments are open to criticism. For example, a broadside of 1718, "The Humble Petition of the Mayor, Sheriffs, Justices, Aldermen and Common-Council of the City of Norwich" is remarkable for the insolence of its language. The petitioners pray that "Your Majesty may be informed by your interpreters that Norwich was before the Revolution, next to London, the most Rich and Potent City in England. It is now fallen very low. Its stuffs are such as your Royal issue might have been glad to wear if your country had afforded anything to offer in exchange for them. It would have been better for Norwich to have clothed your family there than have been blest with their company here, but your affections run only towards Hanover. Our children cry for bread, and as soon as they can speak, stutter forth curses against you and your issue, etc. Norwich wants a free unbrib'd Parliament."

Now the Catalogue description, though longer than this paraphrase, omits the exception of London and has no hint of the arrogance in the petition. There was no other country in Europe in which individuals or civic authorities would in 1718 have dared to address their Sovereign in language so insulting, or would have escaped condign punishment for printing such a paper. Nothing could illustrate more strikingly the change from Tudor and Stuart times to the post-Revolution period so far as licence of speech and writing are concerned. But the Catalogue does not disclose it. The quotation "now we are most Poor, our Wives are most pregnant," recalling to some of us Adam Smith's reference to the fecundity of the "half-starved Highland woman," might have been spared to make room for mention of the tone of the broadside.

A few omissions from the collection are probably due to the fact that some items bound and shelved with the books have been overlooked. But the most serious omission remains to be mentioned.

The collection, as is well known, was made by Professor Foxwell. The skill, energy and enterprise which he displayed over a long period of years, and the valuable annotations with which he enriched the documents have made the Catalogues possible. The dating of many of the broadsides in particular must have cost him a very heavy amount of research in the Journals of both Houses of Parliament and in following up internal evidence. A well-merited tribute is paid to the library assistants for their part in preparing the Catalogues, but the principal actor, whose notes are used and whose lifetime of erudite labour the collection embodies, is not even mentioned. It is to be hoped that this ugly blot will not disfigure any future Catalogue, but that the munificence of the Goldsmiths' Company, who bought the collection and presented it to the University, will be coupled with the name of the great economist who made it, and to whom it is an imperishable monument.

HENRY HIGGS

Encyclopædia of the Social Sciences. Edited by E. R. A. SELIGMAN. Vol. II. (Alliance—Brigandage). (Macmillan. Pp. 696. 31s. 6d.)

THIS is the second of the fifteen volumes in which this work will be completed. As the particular interest of the first volume was in its contributions on Agriculture, so in this volume Banking is perhaps the special feature. The theory is written by O. M. W. Sprague: the early history by Julius Landmann: and modern systems by Hawtrey, Sprague, Weber and Beckhart. Mention should also be made of Viner's article on the Balance of Trade. Among the important descriptive articles are those on the growth of the Automobile Industry, and on Aviation.

Number; the Language of Science. By T. DANTZIG, Ph.D. (London: Allen and Unwin. Pp. 260. 10s.)

WHILE this is frankly a book on mathematics, its purpose is not the technicalities of that science, but the exposition of the meaning of a calculus, and of the origin and evolution of the use of numbers. Anyone can read it who has "the capacity for absorbing and appraising ideas." The author has succeeded in his purpose of making the theory of number a cultured and fascinating study, linked at each step with the names of those to whom new ideas came first. "In the history of culture the discovery of zero will always stand out as one of the greatest single achievements of the human race." Those who read the chapter on "The empty column," or "How zero was discovered,"

will resolve to place this refreshing and unusual book on their shelves.

The Shipping World. By JOHN A. TODD. (Pitman. Pp. 292. 7s. 6d.)

For half a dozen years the Liverpool School of Commerce has been experimenting in the provision of special courses for men engaged in the two chief trades of the locality—cotton and shipping. One of the experiments has consisted of a series of lectures on Shipping and Ports, each portion of the subject-matter being dealt with by a man actively engaged in these undertakings. No less than twenty-two persons contributed to the series. Mr. Todd has collected these lectures and edited them. The result is a book which has the merits and defects of its origin.

A series of lectures given in this way, whilst gaining from the specialist knowledge of each lecturer, inevitably lacks continuity. Each lecturer assumes that his predecessors either have dealt with or omitted to deal with matters related to, but not necessarily part of his particular section. In some cases this leads to omissions, in others to over-lapping. The editor has had the difficult and unenviable task of deciding where elimination should take place. On the whole he has carried out his task with success, but the reader cannot help the feeling that in many cases re-writing was essential, if a book following an ordered course was to emerge. As it is, some chapters are noticeably incomplete, but generally the missing matter is discovered in some other part of the book.

It says much for the way in which the task has been carried out, that only in one case has an error in fact been noticed. On p. 14 the Board of Trade requirements for emigrants are given as 15 clear superficial feet on passenger deck, whereas on p. 139 the following words are used, "Upper deck, 16 ft. superficial." Fifteen ft. is correct, but in both cases the requirement that the figure applies only with a minimum height of 7 ft. is omitted.

Whilst the student of shipping will find the book most useful as an elementary text-book, he must not allow himself to be misled when the authors venture to make statements about other means of transport. For instance, on p. 252 the following railway rates are quoted :—

Soap.	Liverpool to Bletchley	. 35s delivered
	" " London	. 27s. 9d. collected & delivered
Groceries.	" " Hereford	. 34s. 5d. delivered
	" " Bristol	. 25s. 3d. delivered

The author of the section then goes on: "These rates must be economically wrong: either the Bletchley and Hereford figures are too high, or the London and Bristol rates are too low." A very elementary knowledge of railway economies would have saved this blunder. In the same chapter another lecturer is indicated to have said, "It is true some railway wagons, numbering probably thousands, are privately owned." Why probably? In the next edition, if the words "hundreds of" are substituted for "probably," the truth will be expressed, as for the coal trade alone the number of such wagons exceeds half a million. References to foreign canals are also misleading, since the vital facts are omitted that the capital for them is provided by the State free of charge, and even then deficiencies on maintenance and operating account regularly occur.

In spite of these blemishes, the book is a valuable addition to the literature available to the student who is starting out on a serious study of shipping.

W. T. STEPHENSON

London School of Economics.

Imperial Economic Unity. By LORD MELCHETT. (London: G. G. Harrap & Co. 1930. Pp. 194.)

WE are all, more or less, "imperialistic" in economic outlook nowadays. What exercises our minds is less the desirability of facilitating inter-Empire commerce to the utmost possible extent than the question of the ways and means of doing it. The special value of the little book of Lord Melchett and his associates consists in the fact that it surveys the question of imperial economic relations in systematic fashion. Expert readers may find little in its pages with which they are not already fairly familiar, yet even to them it will prove a useful book of reference. No one will quarrel with the statement of the object which Lord Melchett, like so many others before him, has at heart. "The aim of co-operation in an Empire unit," he writes, "must be to alter the character of imports and exports in such a degree as will ensure to the Empire increasing markets for its produce, and to Great Britain a wider field for its manufactures, without prejudicing the individual, industrial, or agricultural development of the separate parts."

In the last dozen words lies, of course, the crux of the problem. If the Empire is to be made more self-contained than it is in fact to-day, it can only be by the adoption of a general give-and-take policy, entailing concession and compromise on a large scale.

Imperial preference on the whole has hitherto been far too one-sided, and unless a fairer balance of advantage can be struck, the home country may be worse rather than better off for its extension. What is needed is a fair deal all round. At present the Dominions have a perfectly open market in this country for certain staple products of special interest to them; but the preference which they give in return is not absolute, but strictly limited. Even in the matter of Empire trade propaganda there is no fair reciprocity. Our taxpayers are spending, willy-nilly, a round million sterling a year chiefly in advertising the export products of the Dominions and Crown colonies. How much are the latter spending in return in commending to their publics the products of Great Britain? Much, little, or nothing at all? The truth is that whereas British Ministers have hitherto stupidly protested that we in this country do not approach the question of imperial preference at all from the standpoint of material interest, but solely from that of sentiment, with the Dominions the matter is viewed—and rightly viewed—as one of commercial calculation. That is not to say that sentiment is absent on their part, for it is not, but one has only to read the reports of past Imperial Conferences in order to see the prominent place taken by hard business bargaining. There is nothing wrong in that; what is wrong is that the home Governments have been too ready in the past to give something substantial for little or nothing in return.

It is to his credit that, unlike some ardent imperialists, Lord Melchett does not overlook the rightful claims of Great Britain, though he will not convince all readers, however favourable to the principle for which he contends, that the adjustment of the interests of Great Britain and those of the Dominions, where they may be found to conflict, will prove easy. It may be even more disputable whether he is on firm ground when he tells us that the alterations in the existing customs duties, or the introduction of new duties, "need not necessarily mean an increase in price to consumers." The question which consumers, who are also parliamentary electors, will be likely to ask is not whether the abandonment of the existing fiscal policy "need necessarily" add to the cost of commodities, but whether in actual fact they will do so; and experience of the operation of tariffs in other countries, not least in the British Dominions, will be likely to outweigh assurances based on pure theory and hypothesis. Lord Melchett himself would appear to have reservations on the point, for in a later page he writes: "If at this stage I am asked whether my policy involves a tax on this or that, I decline to

answer, because that is a question which can be answered only after the problem of each commodity has been investigated from every point of view." One may fairly doubt whether to hold this "wait and see" attitude upon an aspect of the question which may prove to be one of critical importance is good policy. For while it would be absurd to contend that the expediency of the policy of "imperial economic unity" can be determined by the sole criterion of its immediate effect on the cost of certain articles of common consumption, irrespective of whether higher prices might be attended by compensatory ameliorations and gains—*e.g.* extended industry and trade, with more employment for the workers and greater security for capital and a decent return upon it for the investing public—it is of the utmost moment that the electorate should be told "the truth, the whole truth, and nothing but the truth," so far as that is possible.

W. H. DAWSON

The Money Machine. By F. WHITMORE. (Pitman and Sons : Pp. 132. 5s.)

THIS is one of the most useful books which have been issued for the use of students of the money market. It is written with intimate knowledge, and explains down to the bottom the practice of the banks, discount and issuing houses, exchange dealers, and the bullion market. The "machine" is, as Mr. O. R. Hobson points out in a foreword, too severe a term for what really is an organism working by reactions of "thoughts and emotions, hopes and fears"; and for these Mr. Whitmore's study makes full allowance. Theory requires the understanding of practice; and others than elementary students will welcome so concise and clear a work of reference.

An Audit of America: A Summary of Recent Economic Changes in the United States. By EDWARD EYRE HUNT. (New York : McGraw-Hill Book Company. 1930. Pp. 184.)

THE two volumes upon which Edward E. Hunt's *An Audit of America* is based were published in 1929 under the title *Recent Economic Changes in the United States*. Mr. Hunt, who served as Secretary of the Committee on Recent Economic Changes of the President's Conference on Unemployment, also as editor of its two volume Report, is well qualified to undertake the difficult task of summarising the Committee's findings. He has chosen to do so in the space of a little less than two hundred pages of printed

text. As a supplement or introduction to the original report this book serves a distinct purpose, but the reader unfamiliar with the former may experience difficulty in grasping the significance of some of Mr. Hunt's comments, which are not always self-explanatory.

Close observation of the economic situation in the United States since the early part of 1929 would indicate that the problem of bringing about a condition of economic balance, with which the Committee concerned itself to some extent, involves even greater difficulties than originally surmised. The nature of the temporary remedy or remedies necessary to establish such a balance cannot be definitely determined, if at all, until the present business depression has run its course, for the changing symptoms of the ailment have not as yet been satisfactorily diagnosed.

It is to be hoped that the services of the Committee on Recent Economic Changes and of its able Secretary may again be called upon to still further widen the scope of our knowledge regarding the trends of economic development in the United States, a subject of intense interest to specialists and laymen alike.

FELIX FLUGEL

NOTES AND MEMORANDA

PROGRESSIVE TAXATION AND EQUAL SACRIFICE

"It will be convenient to pause for a moment before attempting a constructive argument, in order to clear away a false opinion which appears to be somewhat widely entertained. This opinion is to the effect that, in all circumstances, in order to secure equal sacrifice, the tax formula must be, in some measure, progressive. . . . This proposition is supposed to be logically deducible from the law of diminishing utility. That supposition is incorrect."¹ So writes Professor Pigou; the view which he expresses in the last sentence must be accepted. Having shown that proportional taxation would be required by the canon of equal sacrifice if the curve showing the diminishing utility of income was a rectangular hyperbola, progressive if the curve was steeper and regressive if it was flatter, he adds, "Plainly it is impossible to decide whether the income-utility curve of the members of the community (all of whom are assumed to be alike) is of this character [viz. a rectangular hyperbola] or of some other defined character by any process of general reasoning."² I propose in this note to suggest a process of general reasoning by which we may establish a probability in favour of the steeper curve. On a later page³ Professor Pigou confesses that the supposition of a steeper curve is "plausible." It is proposed to contend for something more than mere plausibility.

In seeking for a standard by which to measure the utility of various ranges of income, may we not fall back on Adam Smith's "original purchase price," the effort required to obtain it? It will have been noted that Professor Pigou for purposes of the analysis assumes that the taxable members of the community are alike in respect of the utility of income to them. We might carry this similarity one stage further by supposing the x th unit of effort to have the same disutility to them all. Alternatively we may consider our investigation to be concerned with how to tax an individual as his income alters.

The utility of a man's last pound of income is equal to the

¹ Professor Pigou, *Public Finance*, p. 105.

² *Ibid.*, p. 110.

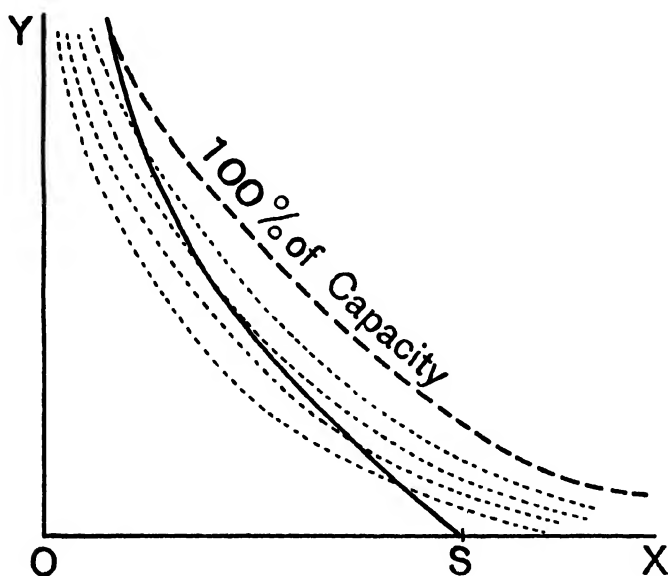
³ *Ibid.*, p. 112.

disutility of the last unit of effort expended to earn that pound. Let it be supposed (i) that the whole income is derived from the reward of effort and (ii) that the recipient is at liberty to vary the amount of his effort. It will be seen that proportional taxation would be justified if it were found that a man expended the same amount of effort whatever his rate of pay. Construct a curve of which the ordinate is the effort price of income (the reciprocal of the rate of pay for work) and the abscissa the amount of income purchased with effort. If this curve is a rectangular hyperbola, the same amount of effort in the aggregate ($xy = k$) is expended in the purchase of income whatever the rate of pay. In this case we have a fixed standard for measuring the marginal utility of income, viz. the k th unit of effort. However income varies, the disutility of a unit of effort expended at the margin to obtain it is constant, since precisely k units of effort are always expended. Consequently the utility of pay per unit of effort at the margin is constant for all incomes, that is, for all rates of pay. Total income is proportional to rate of pay, since the same amount of work is always done. The marginal utility of a pound of income multiplied by the rate of pay is constant. Consequently the marginal utility of a pound multiplied by the total income is constant, and the income-utility curve is a rectangular hyperbola. The curve constructed on the above plan, which we might call the effort demand for income curve, is in this special case identical with income-utility curve; proportional taxation is required.

If the effort demand for income curve has other than unitary elasticity, it is not identical with the income-utility curve, since the marginal unit of effort expended to obtain income is not always the k th unit and we are deprived of our fixed rod for measuring income utility. Certain general relations may, however, be established. If the effort demand for income curve has for part of its course less than unitary elasticity, the last pound of income is, as income increases, pitted against units of effort of successively decreasing disutility. Consequently the marginal utility of a pound of income declines more rapidly than the effort demand for a pound. If the effort-demand curve is steeper than a rectangular hyperbola, the income-utility curve is steeper still. If the effort-demand curve is flatter than a rectangular hyperbola, the income-utility curve is by parity of reasoning flatter still. Consequently taxation should be progressive or regressive according to whether the representative man's effort demand for income is inelastic or elastic.

A man of great virtue might always work 100 per cent. of

capacity whatever his pay. His effort-demand curve would be the innermost of a family of rectangular hyperbolas, each showing willingness to work a given per cent. of capacity whatever the remuneration. The actual effort demand of a representative man impinges on that of the man of great virtue at one point at least, namely, when he is at the subsistence level. Struggling among the ice-packs of the Arctic, marooned on a desert island or exploited by a sub-contractor, a man may have to give his whole self or fail to subsist. He may, of course, give up the unequal struggle, but in that case he passes outside the purview of the tax-collector. Wages then have only to be reduced sufficiently



to bring a man on to the 100 per cent. curve. In more favourable conditions he probably soon drops away from it. As his actual curve passes down to lower percentage members of the family, it must be inelastic.

The picture can be completed if at the other end of the scale we suppose the possibility of satiety. To do so is not unreasonable if, again following Professor Pigou, we take the income-utility curve to refer to "a representative individual whose income, along with the consumable incomes of all other similar individuals, is supposed to vary."¹ This is clearly the proper procedure in considering a tax scale which is to apply similarly to all individuals. With this reservation it seems quite irrational not to suppose a

¹ Professor Pigou, *Public Finance*, p. 111.

limit to the quantity of means to secure which a man is prepared to undergo pain. Desire springs ever; but beyond a certain point it would be directed to new applications of existing means rather than to a further extension of them.

In the adjoining figure income is measured along OX and the effort price of it up OY . A family of rectangular hyperbolas is shown of which the innermost represents the constant outlay of 100 per cent. of capacity. OS represents the amount of income which gives satiety. The effort-demand curve of the representative man takes off from the 100 per cent. of capacity curve and drops finally to S . If it proceeds with regularity it will be inelastic throughout. It may, of course, have kinks and irregularities in various parts, but it must be predominantly inelastic. If this is so, the income-utility curve *a fortiori* is steeper than a rectangular hyperbola, and progressive taxation is justified by the canon of equal sacrifice.

The generalisation which this seems to imply, that the richer a man is the less work he will do, might be regarded as too sweeping.¹ The following points must, however, be remembered. 1. We are supposing the individuals to be similarly situated in their social environment. 2. We suppose similarity of temperament. 3. Work may be undertaken for other than income-getting motives, to obtain power, etc. 4. Some work is pleasant. Units of effort must be measured so as to show the same curve of increasing disutility of units of effort for similar individuals in different professions. Difficulties as to how to determine these units no doubt arise. But they need not be held to obstruct us from reaching our main conclusion.

In this argument effort demand for income has been used as a test of income utility. If the former curve is inelastic, the latter is so *a fortiori*. It was assumed that all income was derived from the reward to effort; but this assumption was only made in order to establish the general character of our test curve. The assumption is not necessary to the conclusion about income utility. If the test curve *would* be of this character in the assumed circumstances, the income-utility curve *is* of this character.

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¹ It is not inconsistent with this to suppose that a man will work harder in response to a rise in pay for a certain *section* of his total effort, or, if he enjoys an unearned income, in response to a rise in pay for all his current income-earning efforts.

OFFICIAL PAPERS

League of Nations : Interim Report of the Gold Delegation of the Financial Committee. (Geneva : 1930.)

A REPORT has just been issued by the League of Nations on the adequacy of the world's supplies of monetary gold. A special Delegation of the Financial Committee was set up over a year ago to examine the fluctuations in the purchasing power of gold and their effect on economic life. The present report summarises the conclusions reached on the particular problem which the Delegation has selected for treatment first, namely, whether the available and prospective supplies of gold are likely to prove adequate to maintain prices. It is clear from the annexes to the report that a very extensive survey of all the existing sources of information has been made.

For the purpose of estimating the monetary demand, it has been assumed that the demand for currency is dependent upon the volume of production and trade and on the monetary transactions to which such trade gives rise, and that, in the absence of any important changes in currency systems and practice, the demand for gold will be determined by the same factors. The future demand is then estimated on the hypothesis that the volume of production and of trade and the volume of notes and sight liabilities of central banks will both tend to expand at an average rate of some 2 to 3 per cent. per annum.

The general conclusion reached is that at no very distant date lack of adequate supplies of new gold for monetary purposes is likely to exercise its influence in depressing prices. The Delegation adds, however, that if the need is recognised, remedial measures can be found which should correct the consequences feared, at any rate for some time to come. A number of remedial measures that might be adopted are mentioned in the last part of the report by way of indication. Special emphasis is laid in this connection on the danger of aggravating the situation which may be caused by countries putting gold once more into circulation.

To the report are added a number of annexes containing official and semi-official estimates furnished to the Delegation on the probable future production of gold in the more important gold-producing countries, and a number of memoranda and statements by Professor Cassel, Sir Reginald Mant, Mr. Joseph Kitchin and others on gold production and the present supply and demand for gold.

It is understood that this volume will be followed by two others containing further documentation submitted to the Delegation.

Guide to Current Official Statistics of the United Kingdom. Vol. VIII. 1929. (H.M. Stationery Office. 1s.)

THE value of official statistics requires no emphasis at a time when so many matters of paramount importance are conspicuous in the public interest. Equally necessary is the provision of handy and inexpensive means for enabling the inquirer to discover which of the many Government publications issued year by year furnishes the statistics required for his particular purpose. Such a means is provided by this *Guide*, which consists not only of an annual catalogue of official publications containing statistics, but also of a detailed index to their contents, arranged under subject headings in such a manner that the nature of the information available on any topic can be ascertained with ease and celerity.

CURRENT TOPICS

THE next meeting of the British Association, which opens on September 23, 1931, is of particular importance, since it is to be held in London. Economists will therefore be glad to learn that Professor Edwin Cannan has accepted the Presidency of Section F. The meetings of this Section will be open to students and economists generally, who will be welcome. It is to be hoped that some foreign economists will take this opportunity of getting into touch with their English colleagues. Particulars of the arrangements can be obtained from the Recorder of the Section, Mr. R. B. Forrester, London School of Economics, Houghton Street, London, W.C. 2.

IN referring, in the last issue of the JOURNAL, to the new Department of Business Administration at the London School of Economics, we quoted from the Annual Report of the London School some references to the early days of the Harvard Graduate School of Business Administration. It seems, however, that the Harvard School, like the new Department of the London School, started from small beginnings. We have pleasure in printing the following correction from Dean Donham of the Graduate School of Business Administration, Harvard University :—

"My attention is called to a statement on page 536 in the issue of the *ECONOMIC JOURNAL* of September 1930 which refers to Harvard Graduate School of Business Administration. A statement is made that the Harvard School of Business started with an endowment of \$5 million, and a contrast is drawn between this sum and the funds available for the new department of Business Administration, Research and Training at the London School of Economics. For this new department funds have been made available by important business firms amounting to about £5,000 a year for five years. The contrast is perhaps a little unfortunate because it is so far from a statement of the facts. The Harvard School of Business started like the new department at the London School of Economics with a guarantee fund in 1908 of \$25,000 a year for five years, almost exactly the same sum and the same period for which the London School has received assurances. The Baker Foundation did not become available to the School until 1925, when it was required not for endowment but to construct the buildings needed to conduct a School then rapidly approaching a thousand in numbers. The whole sum was expended on educational buildings and living quarters for such a School. The endowment of the School at Harvard still continues small, the most important part of its current support having continuously come from business firms in the United States. The funds so secured from industry are entirely used for purposes of research, the cost of operating the School being met by tuitions. I shall appreciate your making the correction in the *JOURNAL*, since it seems to me unfortunate that an impression should be given that a business school of high grade cannot be established without large initial funds."

THE Council of the Royal Economic Society is preparing a definitive and complete edition of the Works of David Ricardo, probably in seven volumes, under the Editorship of Mr. Piero Sraffa. This edition will include not only all his published works and substantial extracts from his speeches in Parliament and contributions to Royal Commissions and the like, but also so much of his correspondence as can be discovered and is of general interest.

Will Members of the Society kindly give us what help they can in tracking down any of Ricardo's letters which have not yet been traced by the Editor? We have already had the good fortune, through the friendly offices of Mr. Frank Ricardo, to discover the letters of Malthus to Ricardo, which give the other side of that famous correspondence, the letters of James Mill and McCulloch

to Ricardo, and also a small number of unpublished letters from Ricardo to various correspondents. We are all the more anxious, therefore, to obtain any further unpublished material that there may be.

Apart from his work as an economist, Ricardo was a stock-jobber and loan contractor during and after the Napoleonic wars, and a Member of Parliament from 1819 to 1823. Besides the published series of his letters, it is known that there must have existed regular correspondence with James Mill, Pascoe Grenfell, Jeremy Bentham, Edward Wakefield, Thomas Smith of Easton Grey, C. H. Hancock, Robert Torrens, Thomas Tooke, and many contemporary politicians. For any letters of Ricardo to these or others we should be most grateful. We should also be obliged for any reference to items of Ricardian interest, especially to portraits and caricatures.

Any communication should be addressed to Piero Sraffa, King's College, Cambridge.

THE London School of Economics is about to issue a Series of Reprints of Scarce Tracts in Economic and Political Science. Commencement has been made with the issue of Alfred Marshall's two essays on *The Pure Theory of Foreign Trade* and *The Pure Theory of Domestic Values*. Printed for private circulation in 1879, they have now been made available for public circulation in their original form by the kind permission of Mrs. Marshall. The price of the work is 5s., but members of the Royal Economic Society are entitled to purchase copies for 3s. 6d. It is proposed to make proportionate reductions on all future works issued in this Series to members of the Royal Economic Society.

The list of works under consideration is given below. But this list is no indication of the immediate plans in regard to the Series. In any case it will not include any of the Reprints to be issued by the Facsimile Text Society of the United States (which will also be available to Members of the Royal Economic Society on special terms), and the number of works reprinted will depend upon the demand.

In order to assist the School in its decisions, members of the Royal Economic Society are invited to indicate the works in the following list in which they would be particularly interested (letters should be addressed to Mr. B. M. Headicar, London School of Economics, Houghton Street, W.C. 2.) and thus afford the editors of the Series some idea as to the works which are most needed.

BOOKS SUGGESTED FOR INCLUSION IN THE PROPOSED SERIES
OF REPRINTS.

1. Gray (John). A Lecture on Human Happiness. 1825.
2. Bray (J. F.). Labour's Wrongs and Labour's Remedy. 1839.
3. Ponet (John). A Short Treatise on Politicke Power. 1556.
4. Winstanley (G.). The True Law of Freedom on a Platform. 1652.
5. Ravenstone (Piercy). A few Doubts as to the Correctness of some Opinions . . . 1821.
6. Winstanley (G.). The light Shining on Buckinghamshire. 1648.
7. Chamberlen (Peter). The Poor Man's Advocate. 1649.
8. Goodman (Christopher). How Superior Powers ought to be obeyed. 1558.
9. Senior. Three Lectures on the Cost of obtaining Money.
10. „ Three Lectures on the Transmission of the Precious Metals.
11. Jenkin (Fleeming). Graphical Representations of the Laws of Supply and Demand.
12. Mill (J. S.). Unsettled Questions.
13. Mill (James). Commerce Defended.
14. Barton (John). Observations on the Circumstances which Influence the Condition of the Labour Classes of Society.
15. Longfield. Lectures on Commerce and Absenteeism.
16. Jones (R.). Inaugural Lecture.
17. Dupuit. Essays from the *Annales des Ponts et Chaussées*.
18. Torrens (R.). Essay on the External Corn Trade.
19. „ The Budget.
20. Bailey (S.). Critical Dissertation on Value.
21. Cairnes. International Trade.
22. Tucker (J.). Elements of Commerce and Theory of Taxes. 1755.
23. Yarranton. England's Improvement by Sea and Land. 1677.
24. Radcliffe. Origin of the New System . . . commonly called "Power Loom Weaving." 1828.
25. Gaskell. The Manufacturing Population of England. 1833.
26. Davenant. Essays on Ways and Means . . .
27. Selected articles contributed by Arthur Young to the *Annals of Agriculture*.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

- PART IV, 1930. *Housing in Liverpool: a Survey, by Sample, of Present Conditions.* D. C. JONES and C. G. CLARK. *Our Food Supply, before and after the War.* A. W. FLUX.

International Labour Review.

- AUGUST, 1930. *Wages Policy and the Gold Standard in Great Britain.* J. R. BELLERBY and K. S. ISLES. *The Agrarian Structure of Poland from the Point of View of Emigration.* Z. LUDKIEWICZ. *Industrial relations in the Zeiss Works.* T. G. SPATES. *International Exchanges of Young Workers.*

Quarterly Journal of Economics.

- AUGUST, 1930. *The Diffusion of Stock Ownership in the United States.* G. C. MEANS. *Demand Curves in Theory and in Practice.* F. W. GILBOY. *Factors in Industrial Integration.* J. JEWKES. *Has the Native Population of New England been dying out?* J. J. SPENGLER. *Moore's Synthetic Economics.* M. EZEKIEL.

Political Science Quarterly.

- OCTOBER, 1930. *The Reparations Settlement and Economic Peace in Europe.* T. W. LAMONT. *Financial Aspects of International Relations.* J. C. STAMP. *Pareto and Pantulconi; Personal Reminiscences.* E. R. A. SELIGMAN.

Review of Economic Statistics (Harvard).

- AUGUST. *Security Loans in Recent Years.* W. L. CRUM. *A Statistical Study of Bank Clearings, 1875-1914.* H. V. ROELSE. *Monthly Index-Numbers of British Export and Import Prices, 1880-1913.* A. G. SILVERMAN.

University of Pennsylvania Law Review.

- APRIL and MAY, 1930. *Methods of regulating Unfair Competition in Germany, England and the United States.* F. E. KOCH. An important and concise comparative survey, including both the well-known leading cases and the more recent judgments on restraint of trade.

Journal of Economic and Business History (Harvard).

- AUGUST, 1930. *Risk in Sea Loans in Ancient Athens.* G. M. CALHOUN. *The Hanseatic League.* C. BRINKMANN. *Wages in Eighteenth-century England.* E. W. GILBOY. *Revolutions of 1848 and German Emigration.* M. L. HANSEN. *Growth of Capital in the United Kingdom.* P. H. DOUGLAS. *Early Factory Magazines in New England.* B. M. STEARNS. *Fisk and Hutch, Bankers and Dealers in Government Securities, 1862-85.* H. E. FISK. *Financial Management of the Cattle Ranges.* L. PELZER.

Journal of Political Economy.

- AUGUST, 1930. *Velocity of Bank Deposits in England.* L. D. EDIE and C. WEAVER. *English theories of Foreign Trade before Adam Smith.* J. VINER. *The Elasticity of Bank-notes.* L. W. MINTS. *The Relationship of Business Activity to Agriculture.* E. GRAUE.

American Economic Review.

- SEPTEMBER, 1930. *New York Public Utility Regulation.* J. BAUER. *Proposed National Banking Legislation.* F. A. BRADFORD. *Static and Dynamic Economics.* S. KUZNETS. *Unemployment and Technical Progress in Commercial Printing.* E. F. BAKER. *Tariff Act of 1930.* A. BERGLUND.

Annals of the American Academy of Political and Social Science.

- SEPTEMBER, 1930. *Post-war Progress in Child Welfare.* Part I: *Recent Changes in Birth-rate and other Factors.* Part II: *Health Work for Children.* Part III: *Mental Hygiene.* Part IV: *Special Problems of Special Groups.* Part V: *General Questions, Research, Training, etc.*

- JULY, 1930. This is a special number dealing with the "Economics of World Peace." Part I: *Population Growth and Migration.* Part II: *International Transport and Communication.* Part III: *Foreign Investments.* Part IV: *Competition for Raw Materials.* Part V: *Commercial Policies and Tariffs.* Part VI: *An American Economic Policy.* In an Appendix, Prof. J. BONN deals with *Economic Tendencies affecting the Peace of the World.* There is a Supplement on *Foreign Land Problems.*

Wheat Studies (Stamford, California).

- MAY, 1930. *Survey of the Wheat Situation, Dec. 1929 to April 1930.* A notably high level of visible supplies in North America, an unprecedentedly small post-war volume of international trade, and a sharp decline of wheat prices from early January to the middle of March were the outstanding features.

- JUNE. *Growth of Wheat Consumption in Tropical Countries.*

- JULY. *Japan as a Producer and Importer of Wheat.*

- SEPTEMBER. *The Changing World Wheat Situation.* In the changes from year to year in the international wheat situation, the various countries of the world play quite different parts. The changing surpluses from Canada, Argentina, Australia are forced on the international market almost without regard to price, promoting wide fluctuations from year to year. The autumn of 1930 finds the ability and disposition to withhold or to accumulate surplus stocks, essential to the prevention of abnormal price depression when supplies are above current requirements, weakened or absent to an extraordinary degree.

Metron.

- JUNE, 1930. *The True Rate of Natural Increase of the Population of the United States.* L. I. DUBLIN and A. J. LOTKA. *The Greek National Income and Wealth in 1929.* P. D. REDIADIS.

Index (Stockholm).

AUGUST, 1930. *International Price Relations.* B. OHLIN.

SEPTEMBER, 1930. *The Future of the Rate of Interest.* J. M. KEYNES.
Some Foreign Trade Problems of To-day. P. JACOBSSON.

Kyoto University Economic Review.

JULY, 1930. *Progression in the Land and Business Taxes.* M. KAMBE.
The Burden of Taxation on the Citizens of Big Cities in Japan.
S. SHIOMI. *The Essential Function of Commerce and Commercial Economics.* K. TANIGUCHI.

The Economic Record.

AUGUST, 1930. (Supplement.) *The Economics of Australian Transport.*
This number includes sixteen papers on Australian transport, in relation to finance and subsidies, the competition of road and rail, and the co-ordination of services. There is an important paper on Australian oversea shipping. Among well-known contributors are D. C. COPLAND, J. B. BRIDGEN, T. HYTEN, and L. F. GIBLIN.

Revue d'Économie Politique.

MAY-JUNE, 1930. *La France économique; annuaire pour 1929.*
(Population, prices, finance, production, trade and labour; by leading French economic experts.)

JULY-AUGUST, 1930. *L'œuvre scientifique de quelques économistes étrangers: F. von Wieser.* M. ROCHE-AGUSSOL. *Essai sur la crise agricole; production et population.* R. COURTIN and P. FROMONT. *Les ententes industrielles internationales.* R. CONTE. *Le bolchevisme.* R. GONNARD. *Le perfectionnement de l'outillage national: Projet Tardieu.* R. FRANCO. *La circulation monétaire aux États-Unis.* J. P. KOSZUL.

Journal des Économistes.

JULY, 1930. *La re-évaluation des bilans en France.* M. GARSOW. *La théorie de la valeur et la théorie générale de la monnaie.* H. HORNOSTEL.

Zeitschrift für die gesamte Staatswissenschaft.

SEPTEMBER, 1930. *Zur Lehre von den Bewegungs-Vorgängen des Wirtschaftslebens.* R. STUCKEN. States certain conditions necessary to be observed in a deductive treatment of economic variation in the manner of Cassel. *Die Neuordnung der Britischen Kohlenwirtschaft.* F. HEYER. A study of the Coal Mines Act of 1930 in relation to post-war economic policy. *Wirtschaft und Nationalismus im fernen Osten.* T. SURANYI-UNGER. *Das Handbuch der Finanzwissenschaft.* O. VON MERING. A critical report.

Jahrbücher für Nationalökonomie und Statistik.

JULY, 1930. *Die physiokratische Wirtschaftstheorie und die Marxsche Arbeitslehre.* F. LUKAS. *Zu Cassels Kapitaltheorie.* W. M. F. VON BISSING. *Das Äquivalenzprinzip.* O. VON NELL-BREUNING. *Theorie der volkswirtschaftlichen Dynamik.* E. CARELL and E. H. VOGEL.

OCTOBER, 1930. *Der Profit als eine nichtwirtschaftliche Kategorie.* L. FRITZSCHING.

Weltwirtschaftliches Archiv.

- OCTOBER, 1930. *Die Theorie der komparativen Kosten und ihre Auswertung für die Begründung des Freihandels.* G. HABERLER. *Das Gesetz der komparativen Kosten.* G. COHN. *Das theoretische Schema der gleichmässig fortschreitenden Wirtschaft.* D. I. OPAHIN. *Notenbankfreiheit?* H. NEISSER. *Die finanzpolitische Bedeutung der Zölle.* R. B. KÄPPELI. *Die Entwicklung der dänischen Handelspolitik und des dänischen Aussenhandels nach dem Kriege.* J. C. JORGENSEN. *Das Problem der interlokalen Bankenkonzentration in den V. S. von Amerika.* T. BALOGH.

Zeitschrift für Nationalökonomie.

- AUGUST, 1930. *Statics and Dynamics.* F. H. KNIGHT. In order to make a complete analogy in economics with the mechanical conception of equilibrium, it is necessary to introduce the elements of resistance, inertia and friction. The equilibrium is analysed under different assumptions, and found to be decreasingly useful the more it is necessary to allow for long adjustments and economic progress. *Comparative Statics.* E. SCHAMS. This study is methodological, making a further analysis of the concepts of variation, variability and economic quantity. *The Abstinence Theory and the Under-valuation of Future Wants.* A. MAHR. Analyses current types of the abstinence theory (Carver and Marshall), and argues that neither these nor Böhm-Bawerk's theory of interest explains under-valuation. (All these articles are in German.)

Vierteljahrshefte zur Konjunkturforschung.

- SONDERHEFT 20. *Die Zukunft des Roggens.*

Giornale degli Economisti.

- APRIL, 1930. *La rendita del consumatore e i principi generali dell'economia.* U. GOBBI. A brief reply to some criticisms urged by Professor Graziani in the January number of the *Giornale* against the writer's conception of consumer's surplus. *Sull'influenza della elasticità della domanda nella produttività crescente.* A. CABIATI. The arguments adduced by Marshall to prove that, in an industry where the individual units are producing under increasing returns, monopoly need not necessarily result, are reinforced when account is taken of the influence of variations in the elasticity of demand for an expanding output. *A proposito della presunta identità dei concetti di monopolio e concorrenza.* L. ROSSI. *Una ricerca sulle cause tecniche della crisi delle borse valori americane.* I. FEDERICI. An important cause of the collapse of the New York Stock Exchange boom, which started to crumble on October 18, 1929, is to be found in certain technical peculiarities of the American stock exchanges. With the object of lessening speculation it is forbidden to carry over dealings in securities, and settlements have to be made within forty-eight hours or less. The effect has been to intensify speculation in its most dangerous forms. In practice the prohibition on future transactions has been surmounted by the system of buying shares on margins, which subjects speculators to much greater risks than they incur elsewhere where fortnightly or monthly settlements prevail. A

further consequence of the American regulation is that operations on "bear" account are penalised relatively to those conducted for a rise, as with daily settlements the former require much larger financial resources than the latter. It is noteworthy that throughout the Stock Exchange boom and down to the day when values began to fall, there was no important bear position in the stock markets. This is borne out by an analysis of brokers' loans and other financial statistics for the critical period. The markets, deprived of any restraining tendency in the shape of large bear operations, were driven up to extravagant heights and then fell with all the greater rapidity owing to the absence of the compensating influence which the bears would otherwise have exercised when buying in the shares they had sold at an earlier date. The slump was also aggravated by the very large volume of shares held on margins and by the system of daily settlements, which combined to bring about forced selling on a great scale. *I sindacati d'operazioni ed il morimento dei prezzi di borsa.* C. M. FLUMIANI. A study, based on first-hand observation of the New York Stock Exchange, of the methods and conditions of success of syndicates formed to influence or manipulate share values.

MAY, 1930. *La legge della domanda dal punto di vista della statica e della dinamica.* A. BORDIN. A lengthy treatment of certain of the mathematical equations of demand and supply based on a modified version of the Walras-Pareto equations. *La situazione patrimoniale delle casse di risparmio ordinarie attraverso le vicende della lira.* L. PASSARDI. *La crise agraria in Ungheria.* C. DI NOLA.

JUNE, 1930. *La dinamica economica di H. L. Moore.* G. DEL VECCHIO. A review article containing a critical appreciation of some general aspects of Professor Moore's *Synthetic Economics*. *Sul valore in regime di costi crescenti.* A. BREGLIA. Under conditions of diminishing returns, when there are wide variations in individual costs and where individual low-cost producers are sufficiently important to exercise a measure of monopoly power—i.e. directly to influence market price—it is not inevitable that price should be fixed at the marginal cost: it may be fixed slightly below marginal cost so as to exclude some of the potential marginal producers. *Il problema filandiero nell'economia serica italiana.* L. USSI.

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among the industries of other countries. In so far as reparation payments result in an abnormal import of capital into Germany from abroad there is a net destruction of wealth. The movement towards increased tariffs in all countries, not least in England, is in part a consequence of the pressure of German reparations, which constitute a pathological element in the economic system of the world. *Vincenzo Dandola e l'economia dell' agricoltura.* F. LUZZATTO.

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